THE UNIVERSITY OF NORTH CAROLINA

THE ONE HUNDRED AND
TWENTY-FIRST SESSION

THE CATALOGUE

1915-1916

1916

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CALENDAR

1916

May 28-31	*Sunday to Wednesday.* Commencement.
June 14-July 26	Summer Term for Teachers.
June 15-August 25	Summer Law School.
September 6-9	*Wednesday to Saturday.* Examinations for Removal of Conditions.
September 12-13	*Tuesday and Wednesday.* Entrance Examinations. Registration.
September 14	*Thursday.* Lectures begin (Fall Term).
October 12	*Thursday.* University Day.
November 30	Thanksgiving Day.
December 21	*Friday.* Christmas Recess begins (1:30).

1917

January 2-3	*Tuesday and Wednesday.* Registration.
January 4	*Friday.* Lectures begin.
January 17-27	Mid-Year Examinations.
January 28	*Monday.* Lectures begin (Spring Term).
February 22	*Thursday.* Washington's Birthday.
April 28	*Saturday.* Selection of Commencement Orators.
May 22-June 1	Final Examinations.
June 3	*Sunday.* Baccalaureate Sermon. Sermon before the Y. M. C. A.
June 4	*Monday.* Senior Class Day. Inter-Society Banquet and Reunions.
June 5	*Tuesday.* Alumni Day. Meeting of the Board of Trustees. Inter-Society Debate.
June 6	*Wednesday.* Commencement Day. Summer Vacation begins.
September 5-8	*Wednesday to Saturday.* Examinations for Removal of Conditions.

PART ONE

FOUNDATION AND GOVERNMENT

BOARD OF TRUSTEES

OFFICERS OF ADMINISTRATION

OFFICERS OF INSTRUCTION

COMMITTEES

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THE UNIVERSITY

FOUNDATION AND GOVERNMENT. The University was established in obedience to the first Constitution of the State, which was adopted in December, 1776. A clause of section XLI declared that "all useful learning shall be duly encouraged, and promoted in one or more universities." The charter was granted by the General Assembly in 1789, the cornerstone of the Old East Building was laid in 1793, and the University was opened in 1795.

The title, preamble, and first section of the Act of incorporation are as follows:

"AN ACT TO ESTABLISH A UNIVERSITY IN THIS STATE."

"WHEREAS in all well regulated Governments, it is the indispensable Duty of every Legislature to consult the Happiness of a rising Generation, and endeavor to fit them for an honorable Discharge of the Social Duties of Life, by paying the strictest attention to their Education: And whereas an University supported by permanent Funds, and well endowed, would have the most direct Tendency to answer the above Purpose:

"I. *Be it therefore enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the Authority of the Same,* That, *Samuel Johnson, James Iredell, Charles Johnson, Hugh Williamson, Stephen Cabarrus, Richard Dobbs Spaight, William Blount, Benjamin Williams, John Sitgreaves, Frederick Hargett, Robert Snead, Archibald Maclaine,* Honourable *Samuel Ashe, Robert Dixon, Benjamin Smith,* Honourable *Samuel Spencer, John Hay, James Hogg, Henry William Harrington, William Barry Grove,* Reverend *Samuel McCorkle, Adlai Osborne, John Stokes, John Hamilton, Joseph Graham,* Honourable *John Williams, Thomas Person, Alfred Moore, Alexander Mebane, Joel Lane, Willie Jones, Benjamin Hawkins, John Haywood,* senior, *John Macon, William Richardson Davie, Joseph Dixon, William Lenoir, Joseph M'Dowell, James Holland and William Porter,* Esquires, shall be and they are hereby declared to be a body politic and corporate to be known and distinguished by the name of *The Trustees of the University of North Carolina** and by that name shall have perpetual Succession and a common Seal; and that they the Trustees and their Successors, by the Name aforesaid, or a Majority of them, shall be able and capable in Law to take, demand, receive and possess all Monies, Goods and

* The corporate name has been changed to The University of North Carolina.

Chattels that shall be given them for the Use of the said University, and the same apply according to the Will of the Donors, and by Gift, Purchase or Devise to take, have, receive, possess, enjoy and retain to them and their Successors forever, any Lands, Rents, Tenements and Hereditaments, of what Kind, Nature or Quality soever the same may be, in special Trust and Confidence that the same or Profits thereof shall be applied to and for the Use and Purpose of establishing the said University."*

The University is governed by a board of trustees elected by the Legislature and is free from sectionalism, sectarian or political control. The Governor of the State is *ex-officio* President of the Board of Trustees.

Article IV of the Constitution of 1876 contains the following provisions regarding the University:

"SEC. 6. The General Assembly shall have power to provide for the election of Trustees of the University of North Carolina, in whom, when chosen, shall be vested all the privileges, rights, franchises, and endowments thereof, in any wise granted to or conferred upon the Trustees of said University; and the General Assembly may make such provisions, laws, and regulations from time to time as may be necessary and expedient for the maintenance and management of said University.

"SEC. 7. The General Assembly shall provide that the benefits of the University, as far as practicable, be extended to the youth of the State free of expense for tuition; also all the property which has heretofore accrued to the State, or shall hereafter accrue, from escheats, unclaimed dividends, or distributive shares of the estate of deceased persons, shall be appropriated to the use of the University."

LOCATION. The seat of the University is Chapel Hill, Orange County, twenty-eight miles northwest of Raleigh. Two daily passenger trains run between Chapel Hill and University Junction, a station on the North Carolina Railroad. The site for the institution was selected because of its healthfulness, its freedom from malaria, its supply of pure water, its beautiful scenery, and its central location in the State.

EQUIPMENT. The University campus contains forty-eight acres of land, affording ample grounds for building and for all sorts of athletic sports. The University owns, contiguous to the campus, five hundred acres of forest lands, which are partly laid off in walks and drives. The University has twenty-five buildings:

* Laws of the State of North Carolina, published by James Iredell, Edenton, 1791.

The South Building contains one lecture room and thirty living rooms.

The Old East Building contains two lecture rooms and twenty-eight living rooms.

The Old West Building contains two lecture rooms, the Historical Museum, and twenty-seven living rooms.

Person Hall contains the Pharmaceutical Laboratories and three lecture rooms.

Gerrard Hall is used for morning prayers, for mass meetings and other student assemblies, and for public lectures.

Smith Hall contains the Law Library and lecture rooms.

The New West Building contains the Dialectic Literary Society's Hall, one lecture room, and eleven living rooms.

The New East Building contains the Philanthropic Literary Society's Hall, the Geological Laboratory and Museum, the offices of the North Carolina Geological Survey, and fourteen living rooms.

Memorial Hall commemorates the illustrious dead of the University. It is used at Commencement for public exercises.

The Alumni Hall contains the offices of administration, the Physical Laboratories, and nine lecture rooms.

The Carr Building, the gift of Gen. J. S. Carr, contains forty-two living rooms.

The Smith Building contains forty living rooms.

The William Preston Bynum, Jr., Gymnasium is the gift of Judge William Preston Bynum, in memory of his grandson, William Preston Bynum, Jr., of the class of 1893. It is furnished with modern apparatus, swimming pool, baths, lockers, and running track; and contains a trophy room and the office of the Instructor in Physical Training.

The Young Men's Christian Association Building is a valuable adjunct to the work of the Association.

Chemistry Hall contains Chemical Laboratories, lecture rooms, offices for instructors, and storerooms.

The new *Library Building*, given by Andrew Carnegie, Esq., has now been in use for eight years.

Davie Hall, the Biological Laboratory, contains laboratories and lecture rooms for zoology and botany.

Caldwell Hall, just completed, is used exclusively by the School of Medicine, and contains laboratories, lecture rooms, dissecting rooms, and offices for the instructors.

The Peabody Building, the gift of the Peabody Board, contains lecture rooms, offices, library, and auditorium, and is splendidly equipped in every detail.

The Infirmary, a spacious and completely equipped building, is open to all students of the University.

The New Dormitories, Battle, Vance, and Pettigrew Sections, contain seventy-two rooms en suite for the use of students.

Swain Hall contains a dining-room with a seating capacity of six hundred, kitchens, a bakery, and a cold storage plant.

University Inn is used for dormitory purposes, and contains a dining hall where students obtain board at fifteen dollars a month.

The Power House contains the electric lighting plant, the central heating plant, the pumps of the system of water supply, and the rooms of the University Press.

The general equipment has been improved by a thorough system of sewers and baths, a supply of pure water in all the buildings, and hot-water heat in all the offices, recitation rooms, reading rooms and living rooms. A filter plant and reservoir have just been added.

COLLEGE YEAR. The College year begins on the second Thursday in September. It is divided into two terms of four and a half months each. Commencement is held on Wednesday before the first Thursday in June. The summer vacation begins on Commencement day and ends on the Wednesday before the second Thursday in September. There is a Christmas recess of about ten days. The twelfth of October (University Day), Thanksgiving Day, and the twenty-second of February (Washington's Birthday) are holidays.

DEGREES. The degrees of Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Doctor of Philosophy, Bachelor of Laws, Graduate of Pharmacy, and Doctor of Pharmacy are conferred by vote of the Trustees, after the recommendation of the Faculty, upon candidates who have satisfied the requirements of residence and study at the University. Students who are not candidates for a degree may elect any studies they wish, subject to the Committee on Courses, devoting their time entirely to one or two subjects, or selecting groups of such subjects as suit their tastes and purposes.

Graduate Students. Free instruction is given in the College to graduates of colleges and universities. Women are admitted to the higher courses of the University.

Physical Training. Hearty encouragement is given to athletic sports and to all kinds of physical culture. The Emerson athletic field, the gift of Mr. Isaac Emerson of Baltimore, furnishes ample facilities for football and baseball, and the track is admirably adapted for running, bicycling, and general track athletics. Fifteen tennis courts are located on the campus. Systematic exercise in the Bynum Gymnasium under a skilled instructor is required of all students in the College, except Seniors.

General Culture. Chapel Exercises are conducted in Gerrard Hall, with the reading of the scriptures and singing, every week-day morning except Saturday, at 9:25 o'clock. At the same hour timely talks are given by different members of the Faculty. Attendance at this service is required of all undergraduates, unless especially excused. Bible classes for young men are taught in each of the four churches of the village every Sunday. Religious services are held twice a week, or oftener, in each church. A series of sermons is delivered annually by the University preachers, chosen by the Trustees from the various denominations. Bible lectures are delivered every Sunday morning in Gerrard Hall. The Young Men's Christian Association meets three times a week, for prayer and other services, and conducts a series of Bible courses, which are largely attended by the students.

Discipline. The University endeavors to make young men manly and self-reliant, and to develop character by educating the conscience. The Faculty may, at their discretion, admonish, suspend, or dismiss students for neglect of duty or for misconduct.

Medical Attention. In order to secure responsible and efficient medical advice and to provide proper attention for the student during sickness, the University employs a practicing physician and maintains a well appointed infirmary. The Infirmary is equipped with all necessary conveniences and comforts, is under the immediate supervision of the University Physician, and is

provided with an experienced nurse. At the discretion of the University Physician a student may be admitted to its wards, and for such services as may be rendered by the staff no charges are made, but should any additional service (consultation, special nurses, operations requiring the attendance of a trained surgeon), recommended by the attending physician and approved by the parent or guardian, be necessary, the student will be required to pay for such services.

TRUSTEES

LOCKE CRAIG, Governor, President *ex officio* of the Board of Trustees.

JAMES YADKIN JOYNER, Superintendent of Public Instruction, member *ex officio* of the Board of Trustees.

R. D. W. CONNOR, Secretary.

MEMBERS OF THE BOARD

1917*

†Alexander Boyd Andrews ..... Wake
David Collin Barnes ..... Hertford
John Robert Williams ..... Johnston
Eric Alonzo Abernethy ..... Orange
Julian Shakespeare Carr ..... Durham
Josephus Daniels ..... Wake
Augustus Washington Graham ..... Granville
John Bryan Grimes ..... Pitt
John S. Cuningham ..... Durham
Luther Thompson Hartsell ..... Cabarrus
Perrin Busbee ..... Wake
John Wetmore Hinsdale, Jr. ..... Wake
Franklin P. Hobgood ..... Granville
William Stamps Howard ..... Edgecombe
Henry Armand London ..... Chatham
Paul Jones Long ..... Northampton
George McNeill Rose ..... Cumberland
George C. Green ..... Halifax
James Sprunt ..... New Hanover
George Stephens ..... Mecklenburg

1919

J. Oscar Atkinson ..... Alamance
Victor Silas Bryant ..... Durham
William Hyslop Sumner Burgwyn, Jr. ..... Northampton
William Preston Bynum, Jr. ..... Guilford
George H. Humber ..... Moore

* The legal term of office expires November 30 of the year indicated.
† Deceased.

R. B. REDWINE ..... Union
JOHN WASHINGTON GRAHAM ..... Orange
MARMADUKE JONES HAWKINS ..... Warren
JOHN EDWARD SWAIN ..... Buncombe
WALTER MURPHY ..... Rowan
ROBERT STUART HUTCHISON ..... Mecklenburg
CHARLES LEE SMITH ..... Wake
JOHN W. WILSON ..... Guilford
ZEB VANCE WALSER ..... Davidson
CHARLES WHEDBEE ..... Perquimans
WILLIAM THORNTON WHITSETT ..... Guilford
FRANCIS DONNELL WINSTON ..... Bertie
CHARLES WILLIAMS WORTH ..... New Hanover
GRAHAM WOODARD ..... Wilson
LESLIE WEIL ..... Wayne

1921

THOMAS HALL BATTLE ..... Nash
JAMES MCENTIRE CARSON ..... Rutherford
WILLIAM EDMUND BREESE ..... Transylvania
FREDERICK JACKSON COXE ..... Anson
WILLIE REID DALTON ..... Rockingham
CLAUDIUS DOCKERY ..... Montgomery
RUFUS ALEXANDER DOUGHTON ..... Alleghany
ROBERT CHARLES ELLIS ..... Cleveland
WILLIAM NASH EVERETT ..... Richmond
JAMES ALEXANDER GRAY, JR. ..... Forsyth
THOMAS JACKSON GOLD ..... Guilford
JOHN SPRUNT HILL ..... Durham
*JOHN ALLEN HOLT ..... Guilford
CHARLES CLARKE LOUGHLIN ..... New Hanover
GEORGE B. MCLEOD ..... Robeson
JOHN MOTLEY MOREHEAD ..... Mecklenburg
HAYWOOD PARKER ..... Buncombe
AUGUSTUS HOBSON PRICE ..... Rowan
JAMES DICK PROCTOR ..... Robeson
ALFRED MOORE SCALES ..... Guilford

1923

C. FELIX HARVEY ..... Lenoir
KEMP PLUMMER BATTLE ..... Orange

* Deceased.

BENEHAN CAMERON	Durham
ADOLPHUS HILL ELLER	Forsyth
JOHN WILLIAM FRIES	Forsyth
WILLIAM ANDERSON GUTHRIE	Durham
W. A. HILL	Duplin
HENRY AUGUSTUS GILLIAM	Edgecombe
GRAHAM KENAN	New Hanover
JOHN C. LAMB	Martin
RICHARD HENRY LEWIS	Wake
ANGUS WILTON MCLEAN	Robeson
R. D. W. CONNOR	Wake
ADDISON GOODLOE MANGUM	Gaston
JAMES SMITH MANNING	Wake
JOHN ARCHIBALD PARKER	Mecklenburg
JETER CONNELLY PRITCHARD	Buncombe
THOMAS DAVIS WARREN	Craven
W. FRANK TAYLOR	Wayne
JOHN KENYON WILSON	Pasquotank

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JULIAN S. CARR,
JOSEPHUS DANIELS,
CLAUDIUS DOCKERY,
JOHN W. GRAHAM,
J. BRYAN GRIMES,
FRANCIS D. WINSTON,
J. Y. JOYNER,
R. H. LEWIS,
JAMES S. MANNING,
CHARLES LEE SMITH,
CHARLES WHEDBEE,
WILLIAM P. BYNUM,
WALTER MURPHY.

VISITING COMMITTEE

A. M. SCALES, CHARLES LEE SMITH,
J. BRYAN GRIMES.

OFFICERS OF ADMINISTRATION

THE UNIVERSITY

Edward Kidder Graham, A. M., D. C. L., LL. D., President.
Walter Dallam Toy, M. A., Secretary of the Faculty.
Charles Thomas Woollen, Business Manager.
Julius Algernon Warren, Treasurer and Bursar.
Thomas James Wilson, Jr., Ph. D., Registrar.
Eugene Fred Parker, A. M., Recorder.

THE COLLEGES AND SCHOOLS

Marvin Hendrix Stacy, A. M., Dean of the College of Liberal Arts.
*Andrew Henry Patterson, A. M., Dean of the School of Applied Science.
Parker Hayward Daggett, Ph. D., Acting Dean of the School of Applied Science.
Charles Lee Raper, Ph. D., Dean of the Graduate School.
Lucius Polk McGehee, A. B., Dean of the School of Law.
Isaac Hall Manning, M. D., Dean of the School of Medicine.
Edward Vernon Howell, A. B., Ph. G., Dean of the School of Pharmacy.
Marcus Cicero Stephens Noble, Dean of the School of Education.

THE LIBRARY

Louis Round Wilson, Ph. D., Librarian.
Nan Spotswood Strudwick, B. L. S., Assistant Librarian.
Annie Jungermann, Assistant Librarian.
Frank Hodges Cooper, Assistant in the Library.
William Cecil Rymer, Assistant in the Library.
James Cornaro Blaine, Assistant in the Library.
Joseph Henry Allred, Assistant in the Library.
John Overton Dysart, Assistant in the Library.
James Thomas Carr Wright, Assistant in the Library.

THE BUREAU OF EXTENSION

Louis Round Wilson, Ph. D., Director.
Edgar Ralph Rankin, A. B., Assistant Director.

* Absent on leave, 1915-1916.

THE GYMNASIUM

Robert Baker Lawson, M. D., Director.
Francis Osborne Clarkson, Assistant in the Gymnasium.
Zebulon Baird Vance Jones, Assistant in the Gymnasium.

YOUNG MEN'S CHRISTIAN ASSOCIATION

Thomas Callendine Boushall, A. B., General Secretary.

OFFICERS OF INSTRUCTION

Edward Kidder Graham, A. M., D. C. L., LL. D., President.
Ph. B., University of North Carolina, 1898; Librarian, *ibid.*, 1899; Instructor in English, *ibid.*, 1899-1901; Associate Professor of English, *ibid.*, 1901-1904; A. M., Columbia University, 1902; Student, *ibid.*, 1904-1905; Professor of English, University of North Carolina, 1904—; Dean of College of Liberal Arts, *ibid.*, 1909-1913; Acting President, *ibid.*, 1913-1914; President, *ibid.*, 1914—; LL. D., Erskine College, 1914; D. C. L., University of the South, 1914; LL. D., Wake Forest College, 1915; LL. D., Lafayette College, 1915.

Kemp Plummer Battle, A. M., LL. D., Professor Emeritus of History.
A. B., University of North Carolina, 1849; A. M., *ibid.*, 1852; Tutor in Mathematics, *ibid.*, 1850-1854; LL. D., Davidson College, 1879; President University of North Carolina, 1876-1891; Professor of History, *ibid.*, 1891-1907; LL. D., *ibid.*, 1910; Professor Emeritus of History, *ibid.*, 1907—

Francis Preston Venable, Ph. D., D. Sc., LL. D., Francis Preston Venable Professor of Chemistry.
Student, University of Virginia, 1874-1879; University of Bonn, 1879-1880; A. M., Ph. D., University of Goettingen, 1881; Student, University of Berlin, 1889; LL. D., University of Pennsylvania, 1901; D. Sc., Lafayette College, 1902; LL. D., University of South Carolina, 1905; LL. D., University of Alabama, 1906; LL. D., Jefferson Medical College, 1913; Professor of Chemistry, University of North Carolina, 1880—; President, *ibid.*, 1900-1914.

Walter Dallam Toy, M. A., Professor of the Germanic Languages and Literatures.
M. A., University of Virginia, 1882; Student, University of Leipzig, 1882-1883; University of Berlin, 1883-1885; Collège de France, 1885; Professor of Germanic Languages and Literatures, University of North Carolina, 1885—; Student, University of Berlin, 1910-1911.

William Cain, A. M., Professor of Mathematics.
A. M., North Carolina Military Polytechnic Institute, 1866; Professor of Mathematics and Engineering, Carolina Military Insti-

tute, 1874-1879; Professor of Mathematics and Engineering, South Carolina Military Academy, 1882-1889; Professor of Mathematics, University of North Carolina, 1889—

Henry Horace Williams, A. M., B. D., Professor of Philosophy.
A. B., A. M., University of North Carolina, 1883; Professor of Philosophy, Trinity College (N. C.), 1885; B. D., Yale University, 1888; Fellow, Harvard University, 1889; Professor of Philosophy, University of North Carolina, 1890—

Henry VanPeters Wilson, Ph. D., Professor of Zoology.
A. B., Johns Hopkins University, 1883, Fellow, *ibid.*, 1887-1889; Ph. D., *ibid.*, 1888; Professor of Biology, University of North Carolina, 1891-1904; Student, University of Berlin, 1902-1903; Professor of Zoology, University of North Carolina, 1904—

Collier Cobb, A. M., Professor of Geology and Mineralogy.
A. B., Harvard University, 1889; A. M., *ibid.*, 1894; Assistant in Geology, *ibid.*, 1888-1890; Instructor in Geology, Massachusetts Institute of Technology, 1890-1892; Instructor in Geology, Harvard Summer School, 1891; Assistant Professor of Geology, University of North Carolina, 1892-1893; Professor of Geology and Mineralogy, *ibid.*, 1893—

Charles Staples Mangum, A. B., M. D., Professor of Anatomy.
A. B., University of North Carolina, 1891; M. D., Jefferson Medical College, 1894; Assistant and Demonstrator, *ibid.*, 1894-1895; Graduate Student, University of Chicago, 1906; Professor of Anatomy, University of North Carolina, 1896—; Student, Harvard University, 1912, 1913.

Edward Vernon Howell, A. B., Ph. G., Professor of Pharmacy.
A. B., Wake Forest College, 1892; Ph. G., Philadelphia College of Pharmacy, 1894; Professor of Pharmacy and Dean of the School of Pharmacy, University of North Carolina, 1897—

Marcus Cicero Stephens Noble, Professor of Pedagogy.
Student, Davidson College and University of North Carolina; Commandant, Bingham School, 1880-1883; Superintendent of Schools, Wilmington, N. C., 1883-1898; Professor of Pedagogy, University of North Carolina, 1898—; Dean of the School of Education, *ibid.*, 1913—

Isaac Hall Manning, M. D., Professor of Physiology.
Student, University of North Carolina, 1882-1886; Assistant in Chemistry, *ibid.*, 1886; M. D., Long Island College of Medicine,

1897; Graduate Student, University of Chicago, 1901, 1903, Harvard University, 1902, 1906; Professor of Physiology, University of North Carolina, 1901—; Dean of the School of Medicine, *ibid.*, 1905—

GEORGE HOWE, Ph. D., Professor of the Latin Language and Literature.

A. B., Princeton University, 1897; A. M., Ph. D., University of Halle, 1903; Student, Oxford University, 1903; Professor of Latin Language and Literature, University of North Carolina, 1903—; Student, American School of Classical Studies at Rome, 1912-1913.

JOSEPH HYDE PRATT, Ph. D., Professor of Economic Geology.

Ph. B., Yale University, 1893; Assistant in Chemistry, *ibid.*, 1894; Assistant in Mining, *ibid.*, 1895; Instructor in Mining, Harvard Summer School, 1895; Ph. D., Yale University, 1896; Instructor in Mineralogy, *ibid.*, 1896-1897; Lecturer on Economic Geology, University of North Carolina, 1899-1904; Professor of Economic Geology, *ibid.*, 1904—; State Mineralogist, 1897-1906; State Geologist, 1906—

CHARLES HOLMES HERTY, Ph. D., Smith Professor of General and Industrial Chemistry.

Ph. B., University of Georgia, 1886; Ph. D., Johns Hopkins, University, 1890; Instructor in Chemistry, University of Georgia, 1891-1894; Adjunct Professor of Chemistry, *ibid.*, 1894-1902; Student, University of Zurich and University of Berlin, 1899-1900; Professor of Chemistry, University of North Carolina, 1905—; Dean of the School of Applied Science, *ibid.*, 1908-1911.

NATHAN WILSON WALKER, A. B., Professor of Secondary Education.

A. B., University of North Carolina, 1903; Superintendent of Schools at Ashboro, N. C., 1903-1905; Professor of Secondary Education, University of North Carolina, 1905—; State Inspector of Public High Schools, 1905—

WILLIAM DEBERNIERE MACNIDER, M. D., Professor of Pharmacology.

Assistant in Biology, University of North Carolina, 1899-1900; Assistant in Anatomy, *ibid.*, 1900-1901; M. D., *ibid.*, 1903; Student, University of Chicago, 1906, 1907, 1908; Professor of Pharmacology, University of North Carolina, 1905—

Charles Lee Raper, Ph. D., Professor of Economics.
A. B., Trinity College (N. C.), 1892; Instructor in Greek and Latin, *ibid.*, 1892-1893; Professor of Latin, Greensboro Female College, 1894-1898; Fellow in History, Columbia University, 1899-1900; Lecturer in History, *ibid.*, 1900-1901; Ph. D., *ibid.*, 1902; Associate Professor of Economics and History, University of North Carolina, 1901-1906; Professor of Economics, *ibid.*, 1906—; Dean of Graduate School, *ibid.*, 1909—

William Chambers Coker, Ph. D., Professor of Botany.
B. S., University of South Carolina, 1894; Ph. D., Johns Hopkins University, 1901; Student, University of Bonn, 1901-1902; Associate Professor of Botany, University of North Carolina, 1902-1907; Professor of Botany, *ibid.*, 1907—

Archibald Henderson, Ph. D., Professor of Pure Mathematics.
A. B., University of North Carolina, 1898; A. M., *ibid.*, 1899; Instructor in Mathematics, *ibid.*, 1898-1902; Student, University of Chicago, 1901; Ph. D., University of North Carolina, 1902; Fellow and Tutor in Mathematics, University College and University of Chicago, 1902-1903; Associate Professor of Mathematics, University of North Carolina, 1902-1908; Professor of Pure Mathematics, *ibid.*, 1908—; Student, Cambridge University, University of Berlin, the Sorbonne, 1910-1911.

Joseph Gregoire deRoulhac Hamilton, Ph. D., Alumni Professor of History.
M. A., University of the South, 1900; Ph. D., Columbia University, 1906; Associate Professor of History, University of North Carolina, 1906-1908; Professor of History, *ibid.*, 1908—

*Andrew Henry Patterson, A. M., Professor of Physics.
Ph. B., B. E., University of North Carolina, 1891; A. B., Harvard University, 1892; A. M., *ibid.*, 1893; Instructor in Physics, University of Georgia, 1894-1897; Adjunct Professor of Physics and Electrical Engineering, *ibid.*, 1897-1898; Professor of Physics and Astronomy, *ibid.*, 1898-1908; Student, University of Berlin and Charlottenburg Technische Hochschule, 1905-1906; Student, Cambridge University, 1906; Professor of Physics, University of North Carolina, 1908—; Dean of the School of Applied Science, *ibid.*, 1911—

Henry McGilbert Wagstaff, Ph. D., Professor of History.
Ph. B., University of North Carolina, 1899; Professor of Mathematics, Rutherford College (N. C.), 1900-1902; Ph. D., Johns

*Absent on leave, 1915-1916.

Hopkins University, 1906; Acting Professor of Economics and History, Alleghany College, 1906-1907; Associate Professor of History, University of North Carolina, 1907-1909; Professor of History, *ibid*, 1909—

PATRICK HENRY WINSTON, Professor of Law.
Student, University of Texas, 1897-1898; University of North Carolina, 1899-1900; Graduate United States Military Academy, 1905; Student, University of North Carolina School of Law, 1905; Professor of Law, *ibid.*, 1909—; Student, University of Michigan, 1910.

WILLIAM MORTON DEY, Ph. D., Professor of the Romance Languages and Literatures.
B. A., M. A., University of Virginia, 1902; Student in Paris, 1903; A. M., Harvard University, 1904; Austin Teaching Fellow, *ibid.*, 1905-1906; Ph. D., *ibid.*, 1906; Student in Spain and Italy, 1906; Assistant Professor of Romance Languages, University of Missouri, 1906-1909; Professor of Romance Languages, University of North Carolina, 1909—

MARVIN HENDRIX STACY, A. M., Professor of Civil Engineering.
Ph. B., University of North Carolina, 1902; Instructor in Mathematics, *ibid.*, 1902-1906; A. M., *ibid.*, 1904; Student, Cornell University, 1905, 1906, 1911; Associate Professor of Civil Engineering, University of North Carolina, 1906-1910; Professor of Civil Engineering, *ibid.*, 1910—; Acting Dean of the College of Liberal Arts, *ibid.*, 1913-1914; Dean of the College of Liberal Arts, *ibid.*, 1914—

LUCIUS POLK MCGEHEE, A. B., Professor of Law.
A. B., University of North Carolina, 1887; Student, School of Law, *ibid.*, 1890-1891; Professor of Law, *ibid.*, 1904-1909; Dean of the School of Law, *ibid.*, 1910—

ATWELL CAMPBELL MCINTOSH, A. M., Professor of Law.
A. B., Davidson College, 1881; A. M., *ibid.*, 1887; Professor of Law, Trinity College (N. C.), 1904-1910; Professor of Law, University of North Carolina, 1910—

HARRY WOODBURN CHASE, Ph. D., Professor of Psychology.
A. B., Dartmouth College, 1904; Teacher in the Groveland High School (Mass.), 1904-1908; A. M., Dartmouth College, 1908; Director of the Clinic for Subnormal Children, Clark University, 1909-1910; Ph. D., *ibid.*, 1910; Professor of Psychology, University of North Carolina, 1910—

Alvin Sawyer Wheeler, Ph. D., Professor of Organic Chemistry.

A. B., Beloit College, 1890; Student, University of Chicago, 1895; Student, Cornell University, 1897; A. M., Harvard University, 1897; Assistant in Chemistry, *ibid.*, 1897-1900; Ph. D., *ibid.*, 1900; Associate Professor of Chemistry, University of North Carolina, 1900-1912; Professor of Organic Chemistry, *ibid.*, 1912—; Student, University of Berlin, University of Bonn, Swiss Federal Polytechnic, 1910-1911.

Louis Round Wilson, Ph. D., Professor of Library Administration.

A. B., University of North Carolina, 1899; Librarian, *ibid.*, 1901—; A. M., *ibid.*, 1902; Ph. D., *ibid.*, 1905; Associate Professor of Library Administration, *ibid.*, 1907-1912; Student, Columbia University, 1910; Professor of Library Administration, University of North Carolina, 1912—; Director of the Bureau of Extension, *ibid.*, 1914—

Parker Hayward Daggett, S. B., Professor of Electrical Engineering.

Assistant in Electrical Engineering, Harvard University, 1908-1909; S. B., *ibid.*, 1910; Acting Professor of Electrical Engineering, University of North Carolina, 1910; Associate Professor of Electrical Engineering, *ibid.*, 1910-1913; Professor of Electrical Engineering, *ibid.*, 1913—; Acting Dean of the School of Applied Science, 1915—

James Munsie Bell, Ph. D., Professor of Physical Chemistry.

B. A., University of Toronto, 1902; M. A., *ibid.*, 1905; Assistant in Chemistry, Cornell University, 1902-1903; Graduate Scholar in Chemistry, *ibid.*, 1903-1904; Sage Fellow in Chemistry, *ibid.*, 1904-1905; Ph. D., *ibid.*, 1905; Associate Professor of Physical Chemistry, University of North Carolina, 1910-1913; Professor of Physical Chemistry, *ibid.*, 1913—

Edwin Greenlaw, Ph. D., Professor of English.

A. B., Northwestern University, 1897; A. M., *ibid.*, 1898; A. M., Harvard University, 1903; Ph. D., *ibid.*, 1904; Instructor in English, Northwestern University, 1898-1902, 1904-1905; Instructor in English, University of Chicago, 1904, 1907; Professor of English, Adelphi College, 1905-1913; Professor of English, University of North Carolina, 1913—

LESTER ALONZO WILLIAMS, A. M., Pd. D., Professor of Rural Education.
A. B., Dartmouth College, 1903; A. M., New York University, 1909; Pd. D., *ibid.*, 1912; Supervisor of Schools and Principal of High Schools in Massachusetts and New Hampshire, 1903-1912; Supervising Principal, Leonia, N. J., 1913; Lecturer, Brooklyn Institute of Arts and Sciences, 1913; Professor of School Administration, University of North Carolina, 1913-1915; Professor of Rural Education, *ibid.*, 1915—

JAMES BELL BULLITT, A. M., M. D., Professor of Histology and Pathology.
A. B., Washington and Lee University, 1894; A. M., *ibid.*, 1895; M. D., University of Virginia, 1897; Demonstrator of Anatomy, *ibid.*, 1898-1903; Professor of Anatomy and Pathology, University of Mississippi, 1903-1913; Professor of Histology and Pathology, University of North Carolina, 1913—

EUGENE CUNNINGHAM BRANSON, A. M., Professor of Rural Economics and Sociology.
A. M., Trinity College (N. C.), 1894; A. M., Peabody Normal College (Tenn.), 1899; President, State Normal School, 1900-1912; Professor of Rural Economics and Sociology, *ibid.*, 1912-1914; Professor of Rural Economics and Sociology, University of North Carolina, 1914—

ELMER ADNA HARRINGTON, Ph. D., Acting Professor of Physics.
A. B., Clark College, 1905; Scholar in Physics, Clark University, 1905-1906; A. M., *ibid.*, 1906; Fellow, *ibid.*, 1906-1907, 1908-1909, 1914-1915; Student, University of Berlin, 1907-1908; Instructor in Physics, Williams College, 1909-1912; Instructor in Physics, Smith College, 1912-1914; Ph. D., Clark University, 1915; Acting Professor of Physics, University of North Carolina, 1915—

WILLIAM STANLY BERNARD, A. M., Associate Professor of Greek.
Student, Episcopal Theological Seminary (Va.), 1893-1895; A. B., University of North Carolina, 1900; Librarian, *ibid.*, 1900-1901; Instructor in Greek, *ibid.*, 1901-1906; A. M., *ibid.*, 1904; Associate Professor of Greek, *ibid.*, 1906—; Student, University of Chicago, 1906, Columbia University, 1909, 1910, 1911.

ROBERT BAKER LAWSON, M. D., Associate Professor of Anatomy.
Student, University of North Carolina, 1897-1900; M. D., University of Maryland, 1902; Instructor in Anatomy, University of North Carolina, 1905-1906; Demonstrator in Anatomy, *ibid.*, 1906-1908; Associate Professor of Anatomy, *ibid.*, 1908—

George McFarland McKie, A. M., Associate Professor of Public Speaking.
Graduate, Emerson College of Oratory, 1898; A. B., A. M., University of North Carolina, 1907; Student, Harvard University, 1907-1908; Instructor in English, University of North Carolina, 1899-1908; Associate Professor of Public Speaking, *ibid.*, 1908—

John Manning Booker, Ph. D., Associate Professor of English.
A. B., Johns Hopkins University, 1901; Student, *ibid.*, 1901-1903, 1905-1909; Student, University of Munich, 1904-1905; Student, University of Heidelberg, 1903-1904, 1905, 1909, 1910, 1911; Ph. D., *ibid.*, 1912; Associate Professor of English, University of North Carolina, 1909—

Oliver Towles, Ph. D., Associate Professor of the Romance Languages.
A. B., University of Virginia, 1906; Student, Johns Hopkins University, 1906-1909; Student in France, 1908; Ph. D., Johns Hopkins University, 1912; Associate Professor of Romance Languages, University of North Carolina, 1909—

Thomas Felix Hickerson, A. M., S. B., Associate Professor of Civil Engineering.
Ph. B., University of North Carolina, 1904; Instructor in Mathematics, *ibid.*, 1905-1908; A. M., *ibid.*, 1907; S. B., Massachusetts Institute of Technology, 1909; Associate Professor of Civil Engineering, University of North Carolina, 1910—

Kent James Brown, Ph. D., Associate Professor of German.
A. B., Dickinson College, 1901; Ph. D., University of Pennsylvania, 1905; Student, University of Berlin, 1904-1905; Student, University of Munich, 1909-1911; Assistant in German, University of Pennsylvania, 1902-1904; Instructor in German, State University of Iowa, 1911-1912; Associate Professor of German, University of North Carolina, 1912—

Norman Foerster, A. M., Associate Professor of English.
A. B., Harvard University, 1910; Instructor in English, Harvard Summer School, 1910, 1913; Student, Harvard University, 1910-1911; Instructor in English, University of Wisconsin, 1911-1914; A. M., *ibid.*, 1912; Associate Professor of English, University of North Carolina, 1914—

James Holly Hanford, Ph. D., Associate Professor of English.
A. B., University of Rochester, 1904; Ph. D., Harvard University,

1909; Assistant in English, *ibid.*, 1908; Instructor in English, *ibid.*, 1910-1913; Assistant Professor of English, Simmons College, 1909-1914; Associate Professor of English, University of North Carolina, 1914—

ROBERT LANE JAMES, C. E., Assistant Professor of Drawing.
Student in France, 1907-1908; C. E., Cornell University, 1912; Assistant Professor of Drawing, University of North Carolina, 1913—

ORESTES PEARLE REIN, Ph. D., Assistant Professor of German.
A. B., Lenoir College, 1907; A. B., University of North Carolina, 1908; Assistant in German, *ibid.*, 1908-1909; A. M., *ibid*, 1909; Fellow, Johns Hopkins University, 1911-1913; Ph. D., *ibid.*, 1913; Assistant Professor of German, University of North Carolina, 1913—

GEORGE KENNETH GRANT HENRY, Ph. D., Assistant Professor of Latin.
A. B., Hamilton College, 1900; A. M., *ibid.*, 1904; Instructor in Mathematics, University of North Carolina, 1908-1909; Instructor in Latin, *ibid.*, 1909-1914; Ph. D., *ibid.*, 1914; Assistant Professor of Latin, *ibid.*, 1914—

JOHN GROVER BEARD, Ph. G., Assistant Professor of Pharmacy.
Assistant in Pharmacy, University of North Carolina, 1908-1909; Ph. G., *ibid.*, 1909; Instructor in Pharmacy, *ibid.*, 1909-1914; Assistant Professor of Pharmacy, *ibid.*, 1914—

VIVIAN LEROY CHRISLER, A. M., Instructor in Physics.
A. B., Piedmont College, 1902; Assistant in Physics, University of Nebraska, 1906-1909; B. S., *ibid.*, 1908; A. M., *ibid.*, 1909; Instructor in Science and Mathematics, Piedmont College, 1909-1910; Instructor in Physics, University of North Carolina, 1910—

WESLEY CRITZ GEORGE, A. M., Instructor in Zoology.
A. B., University of North Carolina, 1911; A. M., *ibid.*, 1912; Instructor in Zoology, University of North Carolina, 1912—

EUGENE FRED PARKER, A. M., Instructor in the Romance Languages.
B. S., Norwich University, 1907; A. M., Harvard University, 1909; Instructor in the Romance Languages, Union College, 1909-1911; Instructor in the Romance Languages, University of North Carolina, 1912—

John Eliphalet Smith, M. S., Instructor in Geology.
B. S., Oregon Agricultural College, 1902; Student, University of Chicago, 1908, 1909, 1910; M. S., Iowa State College, 1911; Graduate Student and Curators' Fellow, University of Missouri, 1911-1912; Assistant in Botany, Kansas State College, 1908-1910; Instructor in Geology, University of North Carolina, 1912—

Hubert Walter Collins, S. B., Instructor in Mathematics.
Assistant in Civil Engineering, University of North Carolina, 1913-1914; S. B., *ibid.*, 1914; Instructor in Mathematics, *ibid.*, 1914—

Henry Roland Totten, A. M., Instructor in Botany.
A. B., University of North Carolina, 1913; Assistant in Botany, *ibid.*, 1913-1914; A. M., *ibid.*, 1914; Instructor in Botany, *ibid.*, 1914—

Henry McCune Dargan, Ph. D., Instructor in English.
A. B., Mercer University, 1910; Student, University of California, 1910-1911; Student, University of Chicago, 1911; A. M., Harvard University, 1912; Ph. D., *ibid.*, 1914; Instructor in English, University of North Carolina, 1914—

Richard Hurt Thornton, A. M., Instructor in English.
A. B., Virginia Christian College, 1907; Graduate Student, Columbia University, 1911-1914; A. M., *ibid.*, 1914; Instructor in English, University of North Carolina, 1914—

Preston Herschel Epps, Instructor in Greek.
Instructor in Greek, University of North Carolina, 1915—

Gustave Adolphus Harrer, Ph. D., Instructor in Latin.
A. B., Princeton University, 1910; Ph. D., *ibid.*, 1913; Instructor in Classics, *ibid.*, 1913-1915; Instructor in Latin, University of North Carolina, 1915—

Clarence Ballew Hoke, B. S., Instructor in Chemistry.
B. S., University of North Carolina, 1913; Instructor in Chemistry, *ibid.*, 1915—

Edgar Long, A. M., Instructor in English.
A. B., Erskine College, 1906; A. M., *ibid.*, 1911; Graduate Student, Columbia University, 1908-1913; Assistant Professor of English, Erskine College, 1907-1914; Instructor in English, University of North Carolina, 1915—

WILLIAM WHATLEY PIERSON, JR., A. M., Instructor in History.
A. B., University of Alabama, 1910; Teaching Fellow in English, *ibid.*, 1910-1911; A. M., *ibid.*, 1911; A. M., Columbia University, 1912; Graduate Student, *ibid.*, 1911-1913; Assistant in History, *ibid.*, 1913-1914; Instructor in History, *ibid.*, 1914-1915; Instructor in History, University of North Carolina, 1915—

WILLIAM WALTER RANKIN, JR., A. M., Instructor in Mathematics.
B. E., North Carolina College of Agriculture and Mechanic Arts, 1904; Professor of Mathematics, Fredericksburg College, 1908-1911; A. M., University of North Carolina, 1912; Fellow in Mathematics, *ibid.*, 1912-1913; Instructor in Mathematics, *ibid.*, 1913-1914, 1915—; Student, Harvard University, 1914-1915.

EDGAR IVAN STAPLES, S. B., Instructor in Electrical Engineering.
S. B., Massachusetts Institute of Technology, 1914; Instructor in Electrical Engineering, University of North Carolina, 1915—

EDGAR WILLIS TURLINGTON, A. B., B. C. L., Instructor in Latin.
A. B., University of North Carolina, 1911; A. B., Oxford University, 1913; B. C. L., *ibid.*, 1914; Instructor in Latin, University of North Carolina, 1915—

DENNIS ROSCOE WOLFF, Assistant in Anatomy.
WILLIAM MAURICE CAPPRIDGE, Assistant in Bacteriology.
NORMAN ANDERSON REASONER, Assistant in Botany.
CARNIE BLAKE CARTER, S. M., LeDoux Fellow and Assistant in Chemistry.
VICTOR ALDINE COULTER, S. M., LeDoux Fellow and Assistant in Chemistry.
LUCIUS COLEMAN HALL, Assistant in Chemistry.
OSCAR ASA PICKETT, Assistant in Chemistry.
WILLIAM HENRY HARRELL, JR., Assistant in Physiological Chemistry.
EDWIN YATES KEESLER, A. B., Assistant in Electrical Engineering.
HORACE GEORGE MERTEN, A. M., Assistant in English.
MARTIN JONES DAVIS, A. B., Assistant in Geology.
WALTER LEON GOLDSTON, JR., Assistant in Geology.
CURTIS AVENT HOLLAND, Assistant in Geology.
HUGH PERCIVAL SMITH, Assistant in Histology.
JOSEPH HENRY ALLRED, Assistant in Mathematics.
GEORGE WALLACE SMITH, Assistant in Mathematics.

Arthur Levy Fishel, Ph. G., Assistant in Pharmacy.
Jesse Eli Turlington, Assistant in Pharmacy.
Herman Glenn Baity, Assistant in Physics.
Lee Henry Edwards, Assistant in Physics.
Charles Spurgeon Harris, Assistant in Physics.
Francis Foster Bradshaw, Assistant in Zoology.
Roger Shore Siddall, Assistant in Zoology.

FACULTY COMMITTEES

The President is a member *ex officio* of all committees.

Advisory (*elected*). Professors Howe, McGehee, Stacy, Wilson (H. V.), Wilson (L. R.).

Executive (*elected*). Professors Stacy, Daggett, Howe, Wagstaff.

Advanced Standing. Professors Wilson, T. J., Howe, Chase, Daggett.

Athletics. Professors Herty, Mangum, Henderson, Howell, Winston, Brown, K. J.

Auditing. Professors Cain, Toy.

Alumni Catalogue. Professors Wilson, T. J., Hamilton, Battle, Mr. Rankin and Alumni representatives.

Alumni Organizations. Mr. Rankin, Professors Bernard, Hamilton, Wilson, T. J.

Catalogue. Professors Howe, Daggett, James.

Chapel. Professors Stacy, Daggett.

Class Reunions. Professor Bernard.

Commons. Professors Toy, McKie, Wheeler.

Courses of Study. Professors Stacy, Greenlaw, Howe, Patterson.

Curriculum. Professors Howe, Chase, Coker, Dey, Stacy, Wilson, T. J.

Debates. Professors Williams, H. H., Raper, Bernard, Greenlaw.

Dramatics. Professors McKie, Howe, Messrs. Dargan, Thornton.

Entrance Certificates. Professors Daggett, Hamilton, Walker, Williams, L. A.

Entrance Conditions. Professors Wilson, T. J., Daggett, Foerster.

Graduate School. Professors Raper, Chase, Greenlaw.

GROUNDS AND BUILDINGS. Professors Coker, Cobb, Wheeler.

LIBRARY. Professors Raper, Coker, Dey, Greenlaw.

LIBRARY APPROPRIATIONS. Professors Raper, Wilson, H. V.

MACNAIR LECTURES. Professors Herty, Coker, Henderson, Williams, H. H.

PRESS ASSOCIATION. Professor Wilson, L. R.

PUBLICATIONS. Professors Wilson, L. R., Hamilton, Coker, Hanford.

PUBLIC LECTURES. Professors Henderson, Howe, McGehee, MacNider, Coker.

PUBLIC OCCASIONS AND CELEBRATIONS. Professors Henderson, Pratt, Hamilton, Patterson, Wheeler, Howe.

SCHEDULES. Professors Wilson, T. J., Stacy.

SELF-HELP. Professors Bell, Wheeler, Hickerson, James.

STUDENT LIFE AND ACTIVITIES. Professors Booker, Wheeler, Wagstaff, Foerster, Mr. Thornton.

UNIVERSITY EXTENSION. Professors Wilson, L. R., Patterson, Noble, Raper, Cobb, Stacy, Chase, Williams, L. A., Branson, Walker, Mr. Rankin.

UNIVERSITY MAGAZINE. Professors Cobb, Booker, Foerster, Mr. Thornton.

UNIVERSITY SERMONS. Professors Toy, Raper, McKie.

PART TWO

THE COLLEGE OF LIBERAL ARTS

THE SCHOOL OF APPLIED SCIENCE

THE SCHOOL OF EDUCATION

THE GRADUATE SCHOOL

THE COLLEGE OF LIBERAL ARTS

There are three courses of instruction outlined in The College of Liberal Arts. The object of these courses is to provide a general, well-rounded, liberal education. The first two years of each allow but little election of studies. Beginning with the Junior year the election is wider, and a student can devote himself, to a large extent, to such special lines of study as he may prefer, although there are certain general restrictions designed to guard against too narrow a specialization. The first course, requiring both Greek and Latin, corresponds to the old classical course. The second course is a combination of ancient and modern languages and science. The third course is largely scientific. All of these courses lead to the one degree of Bachelor of Arts, and they are so balanced as to make the work equally difficult and worthy.

ADMISSION

Admission Into the Freshman Class

Candidates for admission into the Freshman Class are received by certificate from accredited schools or by examination.

Entrance by Certificate. Students who present certificates of work accomplished at preparatory schools and colleges may be admitted without examination, provided the certificates are approved. The right to examine, however, is reserved, when such a course is deemed necessary. Certificates must be made out on the printed forms furnished on application to the Registrar, and should be sent in as early as possible in the summer vacation; the uniform entrance certificates of the Association of Colleges and Preparatory Schools of the Southern States will also be accepted. Candidates must present themselves in person before the Committee on Entrance Certificates in the Alumni Building during the period of registration (*September 12, 13, 1916*).

Entrance by Examination. Entrance examinations are held in September. Arrangements have been made with certain schools in the State whereby examinations for admission may be held in May, also, at the schools. The University will accept the uniform entrance examination papers of the Association of Colleges and Preparatory Schools of the Southern States, provided such papers

are properly vouched for and sent sealed to the University for grading. The University will accept also the certificates of the College Entrance Examination Board. Candidates for admission by examination must report at 9 A. M., *Tuesday, September 12, 1916,* to the Registrar, who will appoint time and place for examination.

Subjects Accepted for Entrance

The complete list of subjects accepted for entrance is as follows:*

English *a, b, c,*	3. units
History *a, b, c,*	3. units
Mathematics *a, b, c, d,*	3.5 units
Greek *a, b, c,*	3. units
Latin *a, b, c, d, e,*	4.7 units
French *a, b,*	3. units
German *a, b,*	3. units
Spanish *a,*	2. units
Botany	1. unit
Chemistry	1. unit
Physics	1. unit
Zoology	1. unit
Drawing	1. unit
General Science	1. unit
Civics	.5 unit
Physiography	.5 unit
Physiology	.5 unit
Vocational Subjects:†	
Commercial Geography	.5 unit
General Agriculture	1. unit
Bookkeeping	1. unit
Commercial Arithmetic	1. unit
Stenography and Typewriting	1. unit
Manual Training	2. units

It will be noticed that each subject has a valuation by units. A unit means a definite amount of a subject satisfactorily completed in a reasonable length of time. For example, one unit in History means the satisfactory completion of a standard text book in United States History in a period of study continuing

* For specific requirements in each of the subjects in this list, see pages 36-42.
† Not more than 2 units from this list may be presented for admission to the College of Liberal Arts.

through an entire High School session; one-half unit in Civics means the completion of a standard text in Civics in about one-half a session; the fourteen units mentioned below correspond to the four years of work in a good high school.

Unconditioned entrance to the undergraduate departments of the University requires a total of 14 units selected from the list above. A candidate, however, who desires to pursue any one of the regular courses leading to a Bachelor's degree must make his selection from the list of accepted subjects accord with the course to be pursued after entrance. Thus, the undergraduate course requiring Greek, Latin, Mathematics, and English necessitates the selection on the part of the candidate of a specified number of units in each of these branches (see below). The same is true, also, of entrance to all other courses.

The following tables indicate the requirements for entrance to each of the three courses leading to the degree of Bachelor of Arts (see page 43).

For entrance to group 1:

English *a*, *b*, and *c*,	3. units
History *a*,	1. unit
Mathematics *a*, *b*, and *c*,	2.5 units
Greek *a* and *b*,	2. units
Latin *a*, *b*, *c*, and *d*,	3.7 units
Elective	1.8 units

For entrance to group 2:

English *a*, *b*, and *c*,	3. units
History *a*,	1. unit
Mathematics *a*, *b*, and *c*,	2.5 units
Latin *a*, *b*, *c*, and *d*,	3.7 units
French *a*, or German *a*, or Spanish *a*,	2. units
Elective	1.8 units

For entrance to group 3:

English *a*, *b*, and *c*,	3. units
History *a*,	1. unit
Mathematics *a*, *b*, and *c*,	2.5 units
Select two (total, 4 units): French *a*,	2. units
German *a*,	2. units
Spanish *a*,	2. units
Science	1. unit
Elective	2.5 units

At the discretion of the Committee on Entrance Certificates, candidates may be admitted with conditions, provided the total number of units offered does not fall below the minimum of 12 units, and provided the conditions are of such nature that, in the judgment of the Committee, they may be removed according to the regulations given in the next paragraph. The Committee has the discretionary power to admit certain candidates whose credits fall below 12 units, if, in the opinion of the Committee, the maturity of the candidate, who must be at least twenty-one years of age, justifies such action. Candidates thus admitted will be classed as special students.

Entrance conditions in any subject must be made up by September of the following year. A student who fails to comply with this regulation will not be allowed to register for any course in his Sophomore year.

The requirements in each of the subjects accepted for entrance are as follows:

ENGLISH: (1915-1919) (*a*) Grammar and Rhetoric .... 1. unit
(*b*) Classics for Reading..... 1. unit

Two from each of the following groups:

GROUP I.—CLASSICS IN TRANSLATION.

The Old Testament, comprising at least the chief narrative episodes in *Genesis*, *Exodus*, *Joshua*, *Judges*, *Samuel*, *Kings*, and *Daniel*, together with the books of *Ruth* and *Esther;* Homer's *Odyssey*, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; Homer's *Iliad*, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; Virgil's *Æneid*. The *Odyssey*, *Iliad*, and *Æneid* should be read in English translations of recognized literary excellence. FOR ANY SELECTION FROM THIS GROUP A SELECTION FROM ANY OTHER GROUP MAY BE SUBSTITUTED.

GROUP II.—SHAKSPERE.

Shakspere's *Midsummer-Night's Dream; Merchant of Venice; As You Like It; Twelfth Night; The Tempest; Romeo and Juliet; King John; Richard II; Richard III; Henry V; Coriolanus; Julius Cæsar; Macbeth; Hamlet.* N. B.—The last three only, if not chosen for study.

GROUP III.—PROSE FICTION.

Malory's *Morte d'Arthur* (about 100 pages); Bunyan's *Pilgrim's Progress*, Part I; Swift's *Gulliver's Travels* (*Voyages to Lilliput* and *to*

Brobdingnag); Defoe's *Robinson Crusoe*, Part I; Goldsmith's *Vicar of Wakefield;* Frances Burney's *Evelina;* Scott's Novels, any one; Jane Austen's Novels, any one; either Maria Edgeworth's *Castle Rackrent* or *The Absentee;* Dickens's Novels, any one; Thackeray's Novels, any one; George Eliot's Novels, any one; Mrs. Gaskell's *Cranford;* either Kingsley's *Westward Ho!* or *Hereward the Wake;* Reade's *The Cloister and the Hearth;* Blackmore's *Lorna Doone;* Hughes's *Tom Brown's Schooldays;* either Stevenson's *Treasure Island*, or *Kidnapped*, or *The Master of Ballantrae;* Cooper's Novels, any one; Poe's *Selected Tales;* either Hawthorne's *The House of the Seven Gables*, or *Twice Told Tales*, or *Mosses from an Old Manse;* A collection of short stories by various standard writers.

GROUP IV.—ESSAYS, BIOGRAPHY, ETC.

Either the Sir Roger de Coverly Papers or Selections from the Tatler and The Spectator (about 200 pages); Boswell's Selections from *The Life of Johnson* (about 200 pages); Franklin's *Autobiography;* either Irving's Selections from *The Sketch Book* (about 200 pages) or *The Life of Goldsmith;* Southey's *Life of Nelson;* Lamb's Selections from *The Essays of Elia* (about 100 pages); Lockhart's Selections from *The Life of Scott* (about 200 pages); Thackeray's Lectures on Swift, Addison, and Steele in *The English Humorists;* Macaulay: one of the following essays: *Lord Clive, Warren Hastings, Milton, Addison, Goldsmith, Frederic the Great*, or *Madame d'Arblay;* Trevelyan's Selections from *Life of Macaulay* (about 200 pages); either Ruskin's *Sesame and Lilies*, or Selections (about 150 pages); Dana's *Two Years Before the Mast;* Lincoln's Selections, including at least the two *Inaugurals*, the *Speeches in Independence Hall* and at *Gettysburg*, the *Last Public Address*, and *Letter to Horace Greeley*, together with a brief memoir or estimate of Lincoln; Parkman's *The Oregon Trail;* Thoreau's *Walden;* Lowell's Selected Essays (about 150 pages); Holmes's *The Autocrat of the Breakfast Table;* Stevenson's *Inland Voyage* and *Travels with a Donkey;* Huxley's *Autobiography* and selections from *Lay Sermons*, including the addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk.*

GROUP V.—POETRY.

Palgrave's *Golden Treasury* (First Series), Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns; *Golden Treasury* (First Series), Book IV, with special attention to Wordsworth, Keats, and Shelley (if not chosen for study under B); Goldsmith's *The Traveler* and *The Deserted Village;* Pope's *The Rape of the Lock;* a collection of English and Scottish ballads, as, for example, some Robin Hood ballads, *The Battle of Otterburn*,

King Estmere, Young Beichan, Bewick and Grahame, Sir Patrick Spens, and a selection from later ballads; Coleridge's *The Rime of the Ancient Mariner, Christabel*, and *Kubla Khan;* Byron's *Childe Harold*, Canto III or IV, and *The Prisoner of Chillon;* Scott's *The Lady of the Lake* or *Marmion;* Macaulay's *Lays of Ancient Rome, The Battle of Naseby, The Armada*, and *Ivry;* Tennyson's *The Princess* or *Gareth and Lynette, Lancelot and Elaine*, and *The Passing of Arthur;* Browning's *Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa—Down in the City, The Italian in England, The Patriot, The Pied Piper, "De Gustibus—,"* and *Instans Tyrannus;* Arnold's *Sohrab and Rustum*, and *The Forsaken Merman;* selections from American poetry, with special attention to Poe, Lowell, Longfellow, and Whittier.

(*c*) Classics for Study ..... 1. unit

One selection from each of the following groups:

GROUP I.—DRAMA.

Julius Cæsar; Macbeth; Hamlet.

GROUP II.—POETRY.

Milton's *L'Allegro, Il Penseroso*, and either *Comus* or *Lycidas;* Tennyson's *The Coming of Arthur, The Holy Grail*, and *The Passing of Arthur;* the selections from Wordsworth, Keats, and Shelley in Book IV of Palgrave's *Golden Treasury* (First Series).

GROUP III.—ORATORY.

Burke's speech on *Conciliation with America;* Macaulay's speech on *Copyright*, and Lincoln's speech at Cooper Union; Washington's *Farewell Address* and Webster's *First Bunker Hill Oration.*

GROUP IV.—ESSAYS.

Carlyle's essay on *Burns*, with a selection from Burn's Poems; Macaulay's life of *Johnson;* Emerson's essay on *Manners.*

HISTORY: (*a*) The history of the United States, as outlined in the best text-books for high schools..... 1. unit
(*b*) The history of Greece and Rome as outlined in the best text-books for high schools..... 1. unit
(*c*) The history of England, as outlined in the best text-books for high schools..... 1. unit
(*d*) Mediæval History ..... 1. unit

Mathematics: (*a*) Elementary Algebra..... 1. unit

A high school algebra to quadratic equations.

(*b*) Advanced Algebra ..... .5 unit

Review of elementary algebra and quadratic equations, binomial theorem, and progressions.

(*c*) The whole of Plane Geometry ..... 1. unit

(*d*) The whole of Solid Geometry ..... .5 unit

(*e*) Trigonometry ..... .5 unit

Plane trigonometry and spherical trigonometry through right triangles.

Greek: (*a*) Grammar and Composition ..... 1. unit

Acquaintance with the more usual forms and constructions; simple narrative in English, based upon Xenophon's Anabasis, to be translated into Greek.

(*b*) Xenophon ..... 1. unit

The first four books of the Anabasis.

(*c*) Homer ..... 1. unit

The first three books of the Iliad (omitting II, 494—end), with study of Homeric forms, constructions, and prosody.

Latin: (*a*) Grammar and Composition .....1. unit

Forms, syntax, and prosody; simple narrative in English, based upon the prose read, to be translated into Latin.

(*b*) Cæsar ..... 1. unit

The first four books of the Gallic War.

(*c*) Cicero ..... .7 unit

The four orations against Catiline.

(*d*) Vergil ..... 1. unit

The first six books of the Æneid, study of hexameter verse.

(*e*) Cornelius Nepos ..... 1. unit

The first fifteen lives.

French: (*a*) Elementary ..... 2. units

The forms and uses of the various parts of speech, including irregular verbs; translation of 250 or more pages of easy prose into idiomatic English; translation of simple English sentences into French; pronunciation.

(*b*) Intermediate ..... 1. unit

Translation of 400 or more pages of French of ordinary difficulty.

GERMAN: (*a*) Elementary ..... 2. units

Inflection, including the most common strong verbs; the ordinary laws of German syntax; translation of 200 or more pages of easy German into idiomatic English; translation of simple English sentences, based upon passages read, into German.

(*b*) Intermediate ..... 1. unit

Translation of 400 or more pages of German of ordinary difficulty.

SPANISH: (*a*) Elementary ..... 2. units

Inflection, including the most common irregular verbs; ordinary laws of syntax; translation of 250 pages or more of easy Spanish into idiomatic English; translation of simple English sentences, based upon the passages read, into Spanish.

GENERAL SCIENCE: ..... 1. unit

A course such as is contained in Caldwell and Eikenberry's General Science; laboratory work. Holden's Real Things in Nature will not be credited for this work.

BOTANY: ..... 1. unit

A course such as is contained in any standard text book; laboratory work.

CHEMISTRY: ..... 1. unit

A course such as is contained in any standard text book; laboratory work.

PHYSICS: ..... 1. unit

A course such as is contained in Millikan and Gale's Physics or Carhart and Chute's High School Physics; laboratory work such as is outlined in Millikan and Gale's Physics.

PHYSIOGRAPHY: ..... .5 unit

A course such as is contained in any standard text book.

PHYSIOLOGY: ..... .5 unit

A course such as is contained in any standard text book.

Zoology: ..... 1. unit

A year's course such as is contained in any standard text book.

Civics: ..... .5 unit

A course such as is contained in any standard text book.

Drawing: ..... 1. unit

A year's work, including simple geometrical plane and solid figures, simple pieces of machinery, elementary rules of perspective, light and shade, as applied in freehand sketching.

VOCATIONAL SUBJECTS

The University will accept, as elective units for entrance, work in the vocational subjects outlined below, to the value of two units for entrance to the College of Liberal Arts, and three units for entrance to the School of Applied Science. Credit will be allowed for these subjects only after special investigation as to the merit of the work done. The content of these courses is essentially the same as that adopted by the Association of Colleges and Preparatory Schools of the Southern States.

General Agriculture: ..... 1. unit

A one year course consisting of three recitation periods and two double laboratory periods a week, extending through one school year. In case the laboratory work is omitted only .5 unit will be allowed.

Bookkeeping: ..... 1. unit

A one year course covering the simple forms in single and double entry bookkeeping.

Commercial Arithmetic: ..... 1. unit

A one year course such as is contained in any standard text book of commercial or business arithmetic.

Commercial Geography: ..... .5 unit

A half-year course such as is contained in any standard text book.

Stenography and Typewriting: ..... 1. unit

Credit will be allowed for work in these two subjects only if presented together. Neither subject will be credited separately.

MANUAL TRAINING: ..... 2. units

A total of not more than two units may be presented from the list of courses in shop work recommended by the Committee on Manual Training of the Southern Commission on Accredited Schools. The time required for each unit is to be not less than 240 sixty-minute hours.

Admission to Advanced Standing

A candidate for advanced standing may be admitted to the Sophomore, Junior, or Senior Class, with or without complete examination. He is subject not only to the examinations required of candidates for admission into the Freshman Class, but to special examinations both in all the required studies already pursued by the class which he desires to enter and in as many elective studies as would have been required of him as a member of that class. When satisfied with the apparent fitness of the candidate, the examining committee may, in spite of his deficiencies in some studies, admit him to an advanced class; but a candidate so admitted is not recommended for the degree until the deficiencies are made good. The examining committee may accept, also, with proper restrictions, the official report of work satisfactorily completed at a college or university of good standing in place of an examination upon such previous work.

A candidate for advanced standing should present himself for examination on the same days and at the same hours as candidates for admission into the Freshman Class.

CURRICULUM

COURSES LEADING TO THE DEGREE OF BACHELOR OF ARTS

In order to be recommended for the degree of Bachelor of Arts, the student must have passed satisfactory examinations in all the studies required in one of the groups prescribed for the Freshman and Sophomore years, and in a number of elective studies during the Junior and Senior years sufficient to amount to an average of fifteen hours of lectures or recitations a week for each of these years. Students who expect at some time to carry out investigation in any science or scientific profession, such as medicine or engineering, are earnestly recommended to enter upon their Senior year with a reading knowledge of German and French. Class work in these subjects should have included at least two courses in German and one in French.

The group of studies selected for the Freshman and Sophomore years must correspond to the group of subjects offered for entrance.

Freshman Year

Group 1.	Group 2.	Group 3.
English 1-2(3)*	English 1-2(3)	English 1-2(3)
Mathematics 1-2(4)	Mathematics 1-2(4)	Mathematics 1-2(4)
Greek 1-2(4)	Select one: Greek 1-2(4)	German 1-2(3)
Latin 1-2(4)	Select one: Latin 1-2(4)	Chemistry 1-2(3)
English 11-12(1)	Select one: German 1-2(3)	History 1-2(3)
	Select one: French 1-2(3)	English 11-12(1)
	History 1-2(3)	
	English 11-12(1)	

Sophomore Year

Group 1.	Group 2.	Group 3.
English 3-4(3)	English 3-4(3)	English 3-4(3)
Select one: Greek 3-4(3)	Select two: Greek 3-4(3)	Select one: Math. 3-4(3)
Select one: Latin 3-4(3)	Select two: Latin 3-4(3)	Select one: German 21-22(3)†
Select one: Greek 3-4(3)	Select two: German 1-2(3)	French 1-2(3)
Select one: Latin 3-4(3)	Select two: French 1-2(3)	Physics 1-2(3)
Select one: German 1-2(3)	Select two: German 21-22(3)†	Elective (3)
Select one: French 1-2(3)	Select two: French 3-4(3)	
Select one: Math. 3-4(3)	Select one: Math. 3-4(3)	
Select one: Chem. 1-2(3)	Select one: Physics 1-2(3)	
Select one: Physics 1-2(3)	Elective (3)	
Elective (3)		

* Numerals in parentheses indicate the number of hours a week.
† German 23-24 or 25-26 may be substituted.

SOPHOMORE ELECTIVES: Greek 3-4 (3), Latin 3-4 (3), German 1-2 (3), French 1-2 (3), History 3-4 (3), History 15-16 (3), Botany 1-2 (3), Chemistry 1-2 (3), Geology 1-2 (3), Mathematics 3-4 (3), Physics 1-2 (3), Zoology 1-2 (3).

Sophomores should choose their elective, if possible, with a view to the later choice of a department for concentrated study in Junior and Senior years.

The selection made must in each case be submitted to Professor Howe for approval.

Not later than May 15 Sophomores shall hand in to the Registrar a list of electives for Junior year, specifying the department chosen for concentrated study and the particular courses in this and other departments. This list must have the written approval of the head of the chosen department before it will be accepted by the Registrar.

SYSTEM OF ELECTIVES

For the purpose of providing what is deemed a proper amount of concentration in study and at the same time of requiring a certain distribution of subjects, the various departments of the College are grouped under three general divisions, as follows:

DIVISION I. *Language and Literature.*

Department of English.
Department of German.
Department of Greek.
Department of Latin.
Department of Romance Languages.

DIVISION II. *Philosophy, Political and Social Sciences.*

Department of Economics.
Department of Rural Economics and Sociology.
Department of Education.
Department of History.
Department of Philosophy.

DIVISION III. *Mathematics, Natural Sciences.*

Department of Botany.
Department of Chemistry.
Department of Electrical Engineering.

Department of Geology.
Department of Mathematics.
Department of Physics.
Department of Zoology.

Junior Year

A Junior shall pursue elective studies amounting to fifteen hours a week, chosen according to the following regulations:

One department must be selected for concentrated study from one of the three general divisions. Not less than six hours nor more than nine hours may be elected in this department. The courses and the number of hours are to be decided upon only after consultation with the head of the department. It lies within the discretion of the head of the department whether the nine hours shall be prescribed in his own department, or the whole or any part of the excess over the minimum of six hours shall be prescribed in allied departments. The Sophomore elective, completed the previous year, may be counted by the head of the department as one of the courses necessary for the minimum of six hours; but in that case an additional elective (chosen from any department) must be taken to complete the general requirement of fifteen hours.

The remaining hours (six to nine) are free electives, subject only to the restriction that at least one course must be chosen from a department in each of the other general divisions. One of these two courses should be selected with a view to a continuance of the same subject through Senior year (see Senior requirement).

The remaining hours, if any, shall be free electives in any subject open to Juniors.

At registration in September the complete list of electives must be submitted to Professor Patterson for approval.

Senior Year

A Senior shall pursue elective studies amounting to fifteen hours a week, chosen according to the following regulations:

A Senior shall continue in the department of concentrated study begun in Junior year. Not less than six hours nor more than nine hours may be elected in this department. The courses and the number of hours are to be decided upon only after consultation with the head of the department. It lies within the discre-

tion of the head of the department whether the nine hours shall be prescribed in his own department, or the whole or any part of the excess over the minimum of six hours shall be prescribed in allied departments.

The remaining hours (six to nine) are free electives, except that at least one course must be chosen from one of the other general divisions and in a department in which a course was elected in Junior year.

At registration in September the complete list of electives must be submitted to Professor Greenlaw for approval.

COURSES OF INSTRUCTION

DEPARTMENT OF BOTANY

William Chambers Coker, Ph. D., *Professor of Botany.*
Henry Roland Totten, A. B., *Instructor in Botany.*
Norman Anderson Reasoner, *Assistant in Botany.*

[For description of Biological Laboratories, see page 261.]

1-2. General Botany: an introduction to the structure and classification of plants; lectures with laboratory work. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor Coker and Mr. Totten.

Laboratory fee, $3.00 a term.

4. Introduction to Systematic Botany: special attention to medical plants. Laboratory and field work, with recitations. Sophomore, Junior, and Senior elective; prerequisite, Botany 1-2. *Spring term, three hours.* Professor Coker and Mr. Totten.

5-6. Physiology: a general course in plant physiology; lectures with laboratory and field experiments. Junior and Senior elective. *Both terms, three hours.* Professor Coker and Mr. Totten.

Laboratory fee, $3.00 a term.

7-8. Special Morphology of the Algæ and Fungi, with attention to the culture of lower fungi, and the identification of mushrooms; lectures with laboratory and field work. Junior and Senior elective. *Both terms, three hours.* Professor Coker and Mr. Totten.

Laboratory fee, $3.00 a term.
For Course 9-10, see Graduate School.

DEPARTMENT OF CHEMISTRY

Charles Holmes Herty, Ph. D., *Smith Professor of General and Industrial Chemistry.*
Francis Preston Venable, Ph. D., D. Sc., LL. D., *Francis Preston Venable Professor of Chemistry.*

ALVIN SAWYER WHEELER, Ph. D., *Professor of Organic Chemistry.*

JAMES MUNSIE BELL, Ph. D., *Professor of Physical Chemistry.*

CLARENCE BALLEW HOKE, S. B., *Instructor in Chemistry.*

CARNIE BLAKE CARTER, M. S., *LeDoux Fellow and Assistant in Chemistry.*

VICTOR ALDINE COULTER, M. S., *LeDoux Fellow and Assistant in Chemistry.*

LUCIUS COLEMAN HALL, *Assistant in Chemistry.*

OSCAR ASA PICKETT, *Assistant in Chemistry.*

[For description of Chemical Laboratories, see page 259.]

1-2. General Descriptive Chemistry: a study of the elements and their compounds; lectures with laboratory work. Students with Chemistry credits may take special laboratory work in inorganic preparations. Required of Freshmen in Group 3, Sophomore elective in Groups 1 and 2. *Both terms, three hours.* Professor VENABLE, and Messrs. HOKE and HALL.

Laboratory fee, $2.50 a term.

8. Inorganic Chemistry: a detailed study of the reactions of the elements and their compounds. Lectures and text books. Junior and Senior elective; prerequisite, Chemistry 41-42. *Spring term, three hours.* Professor HERTY.

11-12. Industrial Chemistry: the methods and economics of chemical industries, with special reference to those industries utilizing the products of the Southern States. Junior and Senior elective; prerequisite, Chemistry 1-2. *Both terms, three hours.* Professor HERTY.

13-14. Chemistry of Foods and Sanitation: composition of foods, their preservation, adulteration and industrial production. Discussion of sanitation, disinfection, sewage disposal; prerequisite, Chemistry 1-2. *Both terms, two hours.* Professor VENABLE.

18. History of Chemistry: Senior elective; prerequisite, Chemistry 61-62 and 81-82. *Spring term, two hours.* Professor VENABLE.

31-32. Qualitative Analysis: laboratory work with lectures. Prerequisite, Chemistry 1-2. Junior and Senior elective. *Both terms, two hours.* Professor Wheeler and Mr. Carter.

Laboratory fee, $5.00 a term.

41-42. Elementary Quantitative Analysis: laboratory work, lectures, and stoichiometric exercises; a grounding in analytical methods. Junior and Senior elective; prerequisite, Chemistry 1-2 and 31-32 or may be taken with 31-32. *Both terms, three hours.* Professor Bell.

Laboratory fee, $7.50 a term.

45-46. Technical Quantitative Analysis: laboratory work. Extension of Course 41-42 along technical lines. Senior elective; prerequisite, Chemistry 41-42. *Both terms, two hours.* Professor Herty.

Laboratory fee, $5.00 a term.

47-48. Gas Analysis, Assaying and Spectroscopic Analysis. Lectures and laboratory work. Senior elective; prerequisite, Chemistry 41-42. *Both terms, one hour.* Professor Bell.

Laboratory fee, $2.50 a term.

49-50. Technical Quantitative Analysis: laboratory work; extension of Course 41-42 along technical lines, research. Senior elective; prerequisite, Chemistry 41-42. *Both terms, five hours.* Professor Herty.

Laboratory fee, $10.00 a term.

61-62. Organic Chemistry: Junior and Senior elective; prerequisite, Chemistry 1-2 and 31-32. *Both terms, three hours.* Professor Wheeler.

Laboratory fee, $4.00 a term.

63-64. Organic Chemistry: laboratory work including analysis of (*a*) pure organic compounds, (*b*) food products, (*c*) commercial dyestuffs. Senior elective; prerequisite, Chemistry 61-62. *Both terms, two hours.* Professor Wheeler.

Laboratory fee, $6.00 a term.

81-82. Elementary Physical Chemistry: Junior and Senior elective; prerequisite, Chemistry 41-42. *Both terms, three hours.* Professor BELL.

Laboratory fee, $2.50 a term.

83. Physical Chemistry: lectures and text books, with laboratory work. Senior elective; prerequisite, Chemistry 81-82. *Fall term, three hours.* Professor BELL.

Laboratory fee, $2.50.

84. Electro-Chemistry: theory and application of electricity to chemical processes. Senior elective; prerequisite, Chemistry 41-42. *Spring term, three hours.* Professor BELL.

Laboratory fee, $2.50.

The Journal Club meets fortnightly. The current journals, American, English, German, and French, both the purely scientific and the technical, are reviewed by the students and instructors. Attendance is expected of students in advanced courses.

For courses 33 and 44, see School of Applied Science.

For courses 71-72 and 74, see School of Medicine and School of Pharmacy.

For courses 25-28, 75-78, 95-98, see Graduate School.

DEPARTMENT OF ECONOMICS AND FINANCE

CHARLES LEE RAPER, Ph. D., *Professor of Economics.*

1-2. General Economics. A general study of the principles which are involved in the production, distribution, and consumption of wealth, and in the relation of wealth to welfare; a special study of labor, land, capital, business management, and the state as factors in the production and distribution of wealth. Text-books, readings, and reports. Raper's *Principles of Wealth and Welfare,* and Seligman's *Principles of Economics* (6th ed.). Junior and Senior elective. *Both terms, three hours.* Professor RAPER.

3-4. Money, Banking, and Insurance. (*a*) A general study of the principles, functions, and forms of money and banking; a special study of current monetary problems. Lectures, readings, and reports. Johnson's *Money and Currency* (revised ed.) and

Dunbar's *Theory and History of Banking* (2d ed.). (*b*) A general study of the principles and methods of insurance; a special study of the regulation of insurance by the state. Gephart's *Principles of Insurance.* Lectures and readings. Junior and Senior elective. *Both terms, three hours.* Professor Raper.

9-10. Transportation and Labor. (*a*) A general study, from the historical and critical points of view, of railway transportation in such representative countries as Great Britain, France, Italy, Germany, and the United States; the general conditions of traffic, the passenger service and rates, the freight service and rates, and the ideals and machinery of the state's relation, receive special consideration. Lectures, readings, and reports. Raper's *Railway Transportation: A History of its Economics and of its Relation to the State.* (*b*) Labor as an agent in the production of wealth; wages; some wages problems, as, for instance, woman and child labor, immigration, sweating system, and poverty; some of the solutions of these problems, as, for instance, strikes, boycotts, trades unions, conciliation and arbitration, profit-sharing, coöperation, industrial education, and the factory acts; the relation of the state to wages problems. Lectures, readings, and reports. Adams and Sumner's *Labor Problems.* Junior and Senior elective. *Both terms, two hours.* Professor Raper.

Given in alternate years; to be omitted in 1916-1917.

13-14. Public Finance. A general study of the principles which are involved in the revenues and expenditures of the state, and in the relation of the state to the industries of its citizens; a special study of taxation, local, state, national. Lectures, readings, and reports. Adams' *The Science of Finance.* Senior elective. *Both terms, two hours.* Professor Raper.

Given in alternate years; to be given in 1916-1917.

15-16. Economic Institutions and Thought in England and the United States. A general study, largely from the historical point of view, of the economic institutions and the systems of economic thought in England and the United States; a special study of socialism. Lectures, readings, and reports. Cheyney's *Industrial and Social History of England,* Brooks' *The Social Unrest,* Spargo's *Socialism,* and the *Communist Manifesto* (Marx and Engels). Senior elective. *Both terms, two hours.* Professor Raper.

A certificate is granted to the student who has completed with credit these courses.

DEPARTMENT OF APPLIED RURAL ECONOMICS AND SOCIOLOGY

EUGENE CUNNINGHAM BRANSON, A. M., *Professor of Rural Economics and Sociology.*

1-2. Formal Course in Rural Economics: a background for defining and interpreting the economic problems of country life in North Carolina; Carver's *Principles of Rural Economics.* References: Taylor's *Agricultural Economics,* Hart's *The Southern South, Country Life* (American Academy of Social and Political Science). Junior and Senior elective. *Both terms, three hours.* Professor BRANSON.

5-6. Constructive Studies in Rural Sociology; Gillette's *Constructive Rural Sociology.* References: Fiske's *Challenge of the Country,* Wilson's *Evolution of the Country Community, The Georgia Club,* and *A Survey of Montgomery County, Md.* (Bulletins of the Federal Bureau of Education), *The Arkansas, and the Tennessee Survey,* issued by Dr. Warren H. Wilson. Junior and Senior elective. *Both terms, three hours.* Professor BRANSON.

9-10. Laboratory Course in Rural Economics and Sociology; home-county and home-state studies, researches, and surveys, by the County Clubs and the North Carolina Club at the University, and by correspondence with members of the extra-campus clubs in North Carolina. Junior and Senior elective. *Both terms, three hours.* Professor BRANSON.

The Club library and files are a clearing house of economic and social information about the State. The headquarters of the North Carolina Club are open to students of all classes and departments during the morning hours of every day, and on Monday, Wednesday, and Friday afternoons, 3:30 to 6:00 o'clock. The North Carolina Club meets one hour fortnightly.

DEPARTMENT OF EDUCATION

MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy and Dean of the School of Education.*

NATHAN WILSON WALKER, A. B., *Professor of Secondary Education and State Inspector of High Schools.*

HARRY WOODBURN CHASE, Ph. D., *Professor of Psychology.*

Louis Round Wilson, Ph. D., *Professor of Library Administration.*
Lester Alonzo Williams, Pd. D., *Professor of Rural Education.*
....., *Professor of School Administration.*

Only those courses are given below which are open to Academic students. For the complete list of courses in Education, with the requirements for the degree of Bachelor of Arts in Education, see the School of Education.

The Science and Practice of Education

1-2. Principles and Methods of Elementary Education. A course for teachers in elementary and grammar grades and for principals and superintendents. A careful study of the principles underlying the successful teaching of elementary branches in the best public and private schools; the preparation of written model lessons for the grades; observation and criticism of teaching and occasional observation of teaching in the village school. Required of Sophomores, Juniors, and Seniors who expect to teach. *Both terms, three hours.* Professor Noble.

3. Theory and Practice of Education. A study of the theory and practice of modern education from the viewpoint of both the teacher and the citizen; the selection of the material of instruction; the development and arrangement of the curriculum for the grammar school and High School. Lectures, text-books, and assigned readings. Junior and Senior elective. *Fall term, three hours,* Professor Noble.

History of Education

22. The General History of Education. A brief general history of education; the development of educational theories in the past; the effect of the pedagogical doctrines of the great educators of the past upon modern educational systems. Lectures, text-books, parallel readings, theses. Junior and Senior elective. *Spring term, three hours.* Professor Noble.

23-24. Current Education. A study of present educational tendencies and practice as seen in typical country and city school systems and in the development and supervision of the American public school of today. For teachers who wish to prepare for

service as principals and superintendents. Lectures, text-books, research, and theses. Junior and Senior elective. *Both terms, two hours.* Professor NOBLE.

25-26. Modern Educational Theorists: A comparative study of modern theories in education as revealed by writers on the topic from the Renaissance to the present time. Present problems in education will be studied in the light of their past. Lectures, discussions, reports. Junior and Senior elective. *Both terms, two hours.* Professor .....

27-28. American Education. A brief study of the more prominent State school systems; a comparative study of the purpose and progress of education in the different sections of the Union. Lectures, text-books, assigned readings, and theses. Graduate course, open to Seniors. *Both terms, two hours.* Professor NOBLE.

Educational Psychology

41-42. Introduction to Educational Psychology. This course will deal with the psychological principles which underly the learning process. Topics treated will be the nature and educational importance of instinct, habit formation, attention and interest, the acquisition of knowledge, attitudes, ideals, action, the emotional life. Lectures, readings, class exercises. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor CHASE.

44. Laboratory course in Educational Psychology. The laboratory work will deal with such topics as habit formation, memory, economical methods of learning, the transfer of training, and some of the simpler mental tests, and will be supplemented by lectures. Junior and Senior elective. Open only to students who have completed the fall term of Education 41-42, or of Philosophy 1-2. *Spring term, three hours.* Professor CHASE.

Laboratory fee, $2.00.

The attention of students in Educational Psychology is called to courses 1-2 (Introduction to Psychology) and 3-4 (Genetic Psychology) in the Department of Philosophy.

Educational Administration and Supervision

51-52. High School Organization and Administration: a study of the American high school, its evolution, organization, administration, function, and problems. Special emphasis will be laid on the State high schools in North Carolina. The course looks toward preparation to meet the State requirements for high school teachers. Text-books, lectures, assigned readings. Junior and Senior elective. *Both terms, three hours.* Professor .....

53-54. Country Life Problems. The work will include a careful and detailed study of the problems peculiar to country life and of the part the country school has in such problems. The material will be secured from a search into actual conditions as found in North Carolina county schools and supplemented by facts about conditions elsewhere in the United States and abroad. Lectures, readings, reports, laboratory studies. Junior and Senior elective. *Both terms, two hours.* Professor Williams.

55-56. Rural School Organization and Administration. This course will attempt to work over the daily problems confronting the officers and teachers in the one-teacher, two-teacher, three-teacher country school, and to open lines of activity for helping to solve the problems. The organization, administration and supervision of graded schools having a high school department will be considered. The work will be of particular value as preparation for the position of principal or superintendent of a town or country school. Lectures, readings, laboratory studies. Senior elective. *Both terms, two hours.* Professor Williams.

61-62. Administration: a study of state and county educational reorganization. The larger problems of necessary State, county and city officers of education, their powers and duties, the sources of income and distribution of expenditure for schools, the units of efficient organization in large and small school systems, etc., will be carefully studied in detail. Text-book, discussions, assigned readings. Senior elective. *Both terms, two hours.* Professor .....

Library Administration

1-2. School Library Administration: a study of the principles and practical management of school libraries, preparation of debates and debate references, reference books, reading courses and children's reading, book selection and ordering, classification and cataloguing, technical methods; practice in the University library. Junior and Senior elective, open only to library assistants and those preparing to become library assistants, or to those taking Education 3, or 51-52, or 53-54. *Both terms, two hours.* Professor WILSON.

DEPARTMENT OF ELECTRICAL ENGINEERING

PARKER HAYWARD DAGGETT, S. B., *Professor of Electrical Engineering.*
EDGAR IVAN STAPLES, S. B., *Instructor in Electrical Engineering.*
EDWIN YATES KEESLER, A. B., *Assistant in Electrical Engineering.*

[For description of Electrical Engineering Laboratories, see page 257.]

5. Steam Machinery: a general elementary course in the construction, operation, and use of the machinery of modern power plants, designed to give a working knowledge of the apparatus in preparation for course 34. The topics considered are the construction and operation of steam boilers, mechanical stokers, feed-pumps and feed-water heaters, simple slide-valve engines, multiple-expansion engines, steam turbines, and gas engines. A brief study is made of fuels and combustion, draft, valves, and valve-gears. Text: Allen and Bursley's *Heat Engines.* Junior and Senior elective. Prerequisites, Drawing 1-2 and Physics 1-2. *Fall term, two hours.* Mr. STAPLES.

9-10. Generation, Transmission and Utilization of Electrical Energy. This course is designed primarily for students of Chemical and Civil Engineering and others who desire to obtain a general practical knowledge of electrical apparatus, including direct and alternating current dynamos, transformers, motor starters and controllers, storage batteries, and incandescent and arc lamps. Special attention is paid to commercial applications of electric power, such as motor-drive for manufacturing purposes, electric traction and hoisting, electrical illumination, automobile and train lighting, and the transmission and distribution of power by elec-

tricity. Text: Gray's *Principles and Practice of Electrical Engineering.* Lectures, recitations and laboratory work. Junior and Senior elective. Prerequisites, Mathematics 3-4 and Physics 1-2. *Both terms, three hours.* Mr. Staples and Mr. Keesler.

Laboratory fee, $3.00 a term.

11-12. Elements of Electrical Engineering: a general survey of the fundamental principles of electric circuits and machinery, designed to furnish a thorough preparation for advanced work in Electrical Engineering. During the first term a study is made of the underlying principles and laws of the electrostatic and the electromagnetic field, direct-current circuits and the theory, structural features and operating characteristics of direct-current machinery. The work of the second term is devoted principally to an extension of the laws of direct-current circuits to the phenomena of alternating-current circuits. The construction and operating features of alternating-current machines are also considered briefly in comparison with the corresponding direct-current equivalents. Text: Christie's *Electrical Engineering.* Junior and Senior elective. Prerequisites, Mathematics 3-4 and Physics 1-2 and 3-4. *Both terms, three hours.* Professor Daggett and Messrs. Staples and Keesler.

Laboratory fee, $3.00 a term.

13. Theory of Electric Circuits. This is an advanced course consisting of an intensive study of the laws of the electric, magnetic and dielectric circuits based on the works of Karapetoff and Steinmetz. Emphasis is placed on the circuital relations existing in these three circuits, and the treatment of each is, so far as possible, identical. A thorough study is made of alternating-current circuits, the aim being to correlate the work with the laws of direct-current circuits in order that a proper perspective may be obtained, and a standard method of treatment adopted for the study of the various types of dynamo-electric machinery. The laboratory work comprises a study of the effects of inductance and capacitance in circuits, hysteresis and eddy-currents in iron, e. m. f. wave-shapes, the electrical relations in polyphase circuits, and the effects of iron in alternating current circuits. Text: Karapetoff's *The Electric Circuit* and *The Magnetic Circuit,* and Steinmetz's

Alternating Current Phenomena. Senior elective. Prerequisites, Mathematics 11-12 and E. E. 11-12. *Fall term, eight hours.* Professor DAGGETT and Mr. STAPLES.

Laboratory fee, $5.00.

14. Direct and Alternating-Current Machinery. This course consists of an analytical study of the performance of electrical machines. The work is correlated closely with E. E. 18. In general are considered such questions as predetermination of e. m. f. wave-shapes of alternators; leakage-reactance of windings; exciting ampere-turns in direct-current machines, synchronous-generators, motors, converters, and induction machines; armature reaction and regulation of direct-current machines and alternators. For the laboratory work a predetermination of the performance of the machine is made from the dimensions and design constants and the results are checked by actual test of the performance in the laboratory. Senior elective. Prerequisite, E. E. 13. *Spring term, four hours.* Professor DAGGETT and Mr. STAPLES.

Laboratory fee, $5.00.

18. Dynamo Design. A course in the principles of the design of standard electric machines. Emphasis is placed on logical analysis of the various problems, both from a theoretical point of view and in the light of commercial limitations and economic conditions involved in manufacturing. The work comprises a study of the design, construction and proportions of direct-current dynamos, alternators, induction motors, synchronous converters and transformers, and parallels closely the work in course 14. Text: Gray's *Electrical Machine Design,* supplemented by wide reading in the works of Hobart, Adams, Arnold and others. Senior elective. Must be accompanied by E. E. 14. *Spring term, four hours.* Professor DAGGETT.

21. Electric Measuring Instruments: a study of the theory, construction, and methods of use of the various instruments used in electric measurements and testing—ammeters, voltmeters, wattmeters, watthour meters, galvanometers, potentiometers, phase and frequency meters, synchroscopes. In the laboratory a study is made of the methods of calibration, special attention being devoted to the testing of watthour meters. Considerable attention

is also given to the errors involved in measurements. Text: Jansky's *Electrical Meters.* Senior elective. Prerequisites, E. E. 11-12. *Fall term, three hours.* Professor Daggett and Mr. Staples.

Laboratory fee, $5.00.

22. Commercial Electric Testing. This course consists principally of a laboratory study of the methods of testing electrical machinery used in commercial practice. Direct and alternating-current machines treated under the following heads: temperature tests; coreless, friction and windage, and efficiency; voltage regulation of generators and speed regulation of motors; commutation tests and adjustment of commutating pole motors; insulation testing; methods of loading, and miscellaneous tests. Text: Karapetoff's *Experimental Electrical Engineering.* Senior elective. Prerequisites, E. E. 13 and 21. *Spring term, three hours.* Professor Daggett and Mr. Staples.

Laboratory fee, $5.00.

31. Electric Power Transmission. A course of lectures and recitations on the design of long-distance transmission lines. (*a*) The economic principles involved in the preliminary design and layout. (*b*) Electrical principles; line materials and constant; regulation; transient phenomena; insulation and lighting protection. (*c*) Mechanical design: sag of conductors; spans; poles and towers. Text: Still's *Overhead Electric Power Transmission.* Senior elective. Prerequisite, E. E. 13. *Fall term, three hours.* Professor Daggett.

32. Telephone and Telegraph Engineering. This course deals with the principles of the transmission of intelligence by telephone and telegraph, including a brief study of radio-telegraphy. Special attention is given to the theory of telephonic transmission, loading coils, inductive disturbances, and the layout of the telephone plant. In the laboratory a study is made of standard telephone instruments, switchboards and circuits, and practice is given in the location of faults in cables and lines. Senior elective. Prerequisite, E. E. 13. *Spring term, two hours.* Professor Daggett.

Laboratory fee, $2.00.

33. Illuminating Engineering. The work of this course begins with a study of the physics of light, including an experimental lecture by Professor Patterson, followed by lectures on the physiological and psychological aspects of the subject by Professors Bullitt and Chase. Considerable time is then devoted to the subject of photometry, after which a study is made of modern sources of artificial light. Finally are considered the principles of design of interior and exterior illumination, special attention being devoted to the conservation of the eyesight and the attainment of the highest efficiency consistent with the best artistic effect. Senior elective. Prerequisite, E. E. 11-12. *Fall term, three hours.* Professor DAGGETT.

Laboratory fee, $3.00.

34. Electric Power Plants. A continuation of E. E. 5 from the standpoint of the choice of machines and apparatus and the layout of the plant as a whole. Considerable attention is devoted to the electrical control apparatus and switch-gear. A brief survey is made of the organization and management of power plants, including the questions of rates and relations to the public. Senior elective. Prerequisites, Physics 5-6 and E. E. 5 and 11-12. *Spring term, two hours.* Mr. STAPLES.

For courses for Graduate Students, see Graduate School.

DEPARTMENT OF ENGLISH

EDWIN GREENLAW, Ph. D., *Professor of English.*
GEORGE MCFARLAND MCKIE, A. M., *Associate Professor of Public Speaking.*
JOHN MANNING BOOKER, Ph. D., *Associate Professor of English.*
JAMES HOLLY HANFORD, Ph. D., *Associate Professor of English.*
NORMAN FOERSTER, A. M., *Associate Professor of English.*
HENRY MCCUNE DARGAN, Ph. D., *Instructor in English.*
RICHARD HURT THORNTON, A. M., *Instructor in English.*
EDGAR LONG, A. M., *Instructor in English.*
HORACE GEORGE MERTEN, A. M., *Assistant in English.*

1-2. Freshman English. Themes are written throughout the year; analytical outlines are prepared about twice a month; a dozen expository essays are studied in detail, with chief emphasis

on the ideas contained in them. In the second term attention is given to narration. The course aims at (1) correct writing, (2) clear thinking, and (3) thorough reading. Required of Freshmen. *Both terms, three hours.* Associate Professor Foerster (Chairman), Associate Professors Booker and Hanford, and Messrs. Dargan, Thornton, Long, Merten.

3-4. The History of English Literature. A study of representative prose and verse from *Beowulf* to the end of the nineteenth century. The stress falls upon the actual study of literature rather than literary history, biography, or criticism, but a syllabus is used as a guide. Reports, outlines, and summaries based on the material read are required at frequent intervals, and class work consists of discussions by instructors and students, rather than of lectures. Required of Sophomores. *Both terms, three hours.* Associate Professor Hanford (Chairman), Professor Greenlaw, Associate Professor Booker, and Messrs. Dargan, Thornton.

The attention of students taking this course is called to course 5-6.

5-6. Literature and its Aims. Most of the first term will be devoted to a consideration of what literature (especially poetry) is, what it aims to do, and what ways of approach contribute to an understanding and enjoyment of it; one or two representative poets will then be studied in some detail. The second term will be devoted to a study of several representative prose writers (*e. g.,* Dr. Johnson, Thackeray, and Emerson). This course may be elected by Sophomores as a supplement to course 3-4, or by Juniors and Seniors who are not majoring in English. *Both terms, two hours.* Associate Professor Foerster.

9-10. English Composition. This course supplements English 1-2, and is designed for those who need additional practice in composition, but are not qualified for admission to courses 21-22 or 23-24. It may be taken as a half course in either term. *Both terms, three hours.*

11-12. Public Speaking. A course in declamation and in simple *ex tempore* speaking on subjects of current interest. The aim of this course is to correct faults in speech and to form the habit of simple, clear, direct speaking. Required of Freshmen, unless excused on the basis of an examination. *Both terms, one hour.* Associate Professor McKie.

13-14. The Forms of Public Address. The argumentative speech, the commemorative address, the after-dinner speech, the eulogy. Open to Sophomores who have attained a grade of 2 in English 2, and to Juniors and Seniors. *Both terms, two hours.* Associate Professor McKIE.

15-16. Debating. The preparation of briefs and forensics, and practice in oral debate. Junior and Senior elective. Prerequisite, English 11-12. *Both terms, two hours.* Associate Professor McKIE.

17-18. Interpretative Speaking and Reading. The purpose of the course is to develop through vocal expression an appreciation of good literature and an ability to interest others in the works of great writers. Junior and Senior elective; open to Sophomores by special permission. *Both terms, two hours.* Associate Professor McKIE.

21-22. English Composition. An advanced course in which special emphasis is put upon expository and argumentative writing, the materials being drawn for the most part from questions of contemporary importance. In the second term some attention is given to the oration as a form of composition. Junior and Senior elective. *Both terms, three hours.* Professor GREENLAW.

23-24. English Composition. An advanced course affording constant practice throughout the year in various forms of prose composition. Discussions and conferences. Junior and Senior elective. Prerequisite, an average of 80 in English 1-2. *Both terms, three hours.* Associate Professor FOERSTER.

27-28. English Composition. The Writing and Editing of News. The first term is spent in writing news and in studying the make-up of newspapers. Weekly news assignments are given in addition to written work in class. Many of the more important American newspapers are studied in detail. The second term will continue news writing and also take up the editing of copy. Junior and Senior elective; also open to Sophomores on the staff of the "Tar Heel." *Both terms, three hours.* Mr. THORNTON.

29-30. English Composition. Editorial and Feature Writing. Editorial policies and problems associated with the weekly and

daily newspaper will be given attention. A study of short-story methods as applicable to feature writing will be made in the second term. Junior and Senior elective. *Both terms, three hours.* Mr. Thornton.

Note.—A special course of study composed of electives from various departments in the College of Liberal Arts is offered to students who are preparing for newspaper work. Students desiring to take courses 27-28 and 29-30 are advised to consult the instructor in charge of these courses during the second term of the Sophomore year. A certificate will be given those who complete the plan of study.

37-38. The Elizabethan Drama. A brief study of the beginnings of the English drama, followed by an intensive study of the period from Lyly to the closing of the theaters. While particular attention is paid to Shakspere, it is also the purpose of the course to study his work in connection with that of his contemporaries. The development of dramatic technique, the Elizabethan conceptions of tragedy and comedy as distinguished from those of classical or of recent times, and the relation of the drama to certain phases of Renaissance thought, are studied through the reading of a considerable number of plays. Junior and Senior elective. *Both terms, three hours.* Professor Greenlaw.

41-42. English Literature in the Age of Elizabeth. A study of the types of literature, except the drama: the sonnets and other lyrical poetry; the pastoral; the epic; prose fiction; the essay. Attention is given to the relations between English and continental literature in the Renaissance. The first term is devoted to the study of poetry, with Spenser as the basis; the second term is concerned chiefly with literary criticism and with the study of Bacon. Junior and Senior elective. *Both terms, three hours.* Professor Greenlaw.

45-46. The Classical Tradition in English Literature. This course is concerned with the influence of classical models and ideals on English literature, primarily in the sixteenth, seventeenth, and eighteenth centuries. The work of the first term will center in Milton as the culmination of English classicism; the second term will be devoted chiefly to the study of Dryden, Pope, Johnson, and

other representatives of the classicism of the Restoration and the Augustan age. Junior and Senior elective. *Both terms, three hours.* Associate Professor HANFORD.

51-52. Romanticism. While this course deals chiefly with English literature from Burns to Keats, it is complementary to course 45-46, in that the element of romanticism in literature is contrasted with the classical ideal. After a brief account of romantic elements in earlier periods and the reaction towards romanticism in the eighteenth century, the work of the first term consists of the reading and interpretation of Burns, Wordsworth, Coleridge, Scott; attention is also given to certain foreign influences, such as that of Germany, and to the development of criticism. The second term treats the poetry of Byron, Shelley, Keats, and the prose of Hazlitt, Lamb, and DeQuincy. Junior and Senior elective. *Both terms, three hours.* Associate Professor HANFORD.

55-56. The Victorian Era in Literature. This course will consist mainly of a somewhat detailed study of Tennyson, Browning, Carlyle, Newman, and Huxley in the first term; and Arnold, Rossetti, Thackeray, and Ruskin in the second term. Junior and Senior elective. *Both terms, three hours.* Associate Professor FOERSTER.

59-60. American Literature. The course deals with the history and development of literature in America. Special attention is paid to the literature of New England and of the Middle States, to southern literature since the Civil War, and to the western humorists. Junior and Senior elective. *Both terms, three hours.* Associate Professor BOOKER.

63-64. The Modern Drama. A study of Ibsen and his influence, and of certain phases of drama represented by other recent English and continental writers. Junior and Senior elective. *Both terms, two hours.* Associate Professor BOOKER.

65-66. The English Novel. While this course deals with the development of prose fiction (romance, novel, short story) in England from the sixteenth century to the present time, the stress will fall on the period from Richardson to Hardy. Attention will be given to the development of the technique of the novel and the

short story, and to the service of fiction as an interpretation of life. Junior and Senior elective. *Both terms, two hours.* Mr. Dargan.

67-68. English Literature of Today. First term: A study of the main currents in contemporary English literature. Certain representative writers are chosen, such as Kipling, Joseph Conrad, Noyes, Hardy, Arnold Bennett, Barrie. Second term: The Celtic renaissance in its various aspects, the reawakening of the Irish national spirit, the rediscovery of Celtic legend, and the rise of mysticism and symbolism. The work of Synge, Yeats, Lady Gregory, and William Sharp. Junior and Senior elective. *Both terms, two hours.* Associate Professor Booker.

To be omitted in 1916-1917.

71-72. Old and Middle English. In the first term a careful study is made of Old English grammar and syntax; a large amount of easy prose is read. In the second term the grammatical work and the reading are carried on into the Middle English period, with special attention to Chaucer. The aim of the course is to acquaint the student with the main facts of the beginning and development of the English language and to introduce him to the study of early English literature. The language of the older periods is considered in its relation to present-day English; many points of confusion in Modern English, unexplained by the rules of logical grammar, are made clear. Junior and Senior elective. *Both terms, three hours.* Associate Professor Hanford.

73-74. Old and Middle English: advanced course. The work of the first term continues the study of Old English grammar, particularly in its relation to that of the other Indo-European languages, but the major part of the term is devoted to the reading of *Beowulf*. In the second term the study of Chaucer, begun in course 71-72, will be continued. Senior elective. *Both terms, three hours.* Associate Professor Hanford.

75-76. History of the English Language. This course supplements courses 71-74. It will trace the growth of the English language from its beginnings in England until today. Junior and Senior elective. *Both terms, two hours.*

This course is omitted in 1915-1916.

DEPARTMENT OF GEOLOGY AND MINERALOGY

COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*
JOSEPH HYDE PRATT, Ph. D., *State Geologist and Professor of Economic Geology.*
JOHN ELIPHALET SMITH, M. S., *Instructor in Geology.*
MARTIN JONES DAVIS, A. B., *Assistant in Geology.*
CURTIS AVENT HOLLAND, *Assistant in Geology.*
WALTER LEON GOLDSTON, JR., *Assistant in Geology.*

[For description of Geological Laboratories, see page 262.]

1-2. Elementary Geology: lectures with field work; laboratory work on the common minerals and rocks. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor COBB, Mr. DAVIS, Mr. HOLLAND, and Mr. GOLDSTON.

Laboratory fee, $1.00 for the fall term, $3.00 for the spring term.

3-4. Mineralogy: crystallography, physical and chemical properties of minerals, blowpipe analysis, determinations; lectures, laboratory, and field work; Dana's *Manual of Mineralogy* (Ford). Junior and Senior elective. Prerequisite, Geology 1-2 and Chemistry 1-2. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, $5.00 a term.

7-8. General Critical Geology: lectures with field work; laboratory work on rocks and fossils; theses. Junior and Senior elective. *Both terms, three hours.* Professor COBB.

Laboratory fee, $3.00 for the fall term, $5.00 for the spring term.

11-12. Economic Geology: ore deposits, coal, oil and gas, clays, building stone, cement materials, fertilizers, underground waters, etc.; occurrence, methods of exploitation, production, and conservation of mineral resources; lectures, laboratory, and field work. Junior and Senior elective. Prerequisite, Geology 1-2 and Chemistry 1-2. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, $1.00 a term.

13-14. Petrography: rocks and rock minerals, optical mineralogy, crystallography, etc.; lectures, laboratory work, theses, and

field work. Junior and Senior elective. *Both terms, three hours.* Mr. Smith.

Laboratory fee, $3.00 a term.

21-22. Advanced course in Physiography. Senior elective. Prerequisite, Geology 1-2. *Both terms, three hours.* Professor Cobb.

Laboratory fee, $2.00 a term.

23-24. Origin and Nature of Soils: field work, laboratory work, and theses. Students in this course are expected to keep Saturday open for field work. Junior and Senior elective. Prerequisite, Geology 1-4, Chemistry 1-2 and 31-32, Botany 1-2. *Both terms, three hours.* Professor Cobb.

Laboratory fee, $3.00 a term.

31-32. Road Materials: rocks, sands, clays, asphalts, concrete, dust preventives, etc., their properties and adaptations; laboratory and field work. Prerequisite, Geology 1-2. *Both terms, one hour.* Mr. Smith.

Laboratory fee, $1.00 a term.

42. Mineral and Ore Deposits: lectures supplemented by laboratory and field work. Prerequisite, Geology 1-4 and Chemistry 31-32. *Twenty-four lectures* (*spring term*). Professor Pratt.

43-44. Advanced Work in Mineralogy. Senior elective. *One hour.* Professor Pratt.

51-52. Advanced field work and special research in Geology or Geography; problems and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Senior elective. Prerequisite, two courses in Geology. *Both terms, three hours.* Professor Cobb.

54. Advanced Geological Field Work and Special Research: studies in the Deep River and Wadesboro areas of the Triassic rocks; a brief examination of the Potomac, Eocene, Lafayette, and Columbia deposits. This course is given in the summer. It covers five weeks, of which one is spent in Chapel Hill with daily meet-

ings; the remaining four weeks are devoted to field work. Students who take this course will be expected to devote all their time to it. Junior and Senior elective. *One term, three hours.* Professor COBB.

The Geological Seminary meets fortnightly for review and discussion of current geological literature and for the presentation of original papers.

For course 55-56, see Graduate School.

For courses 26-28, see School of Applied Science.

DEPARTMENT OF GERMANIC LANGUAGES

WALTER DALLAM TOY, M. A., *Professor of the Germanic Languages and Literatures.*
KENT JAMES BROWN, Ph. D., *Associate Professor of German.*
ORESTES PEARLE REIN, Ph. D., *Assistant Professor of German.*

A. Elementary Course: grammar; written and oral exercises; translation; sight reading. This course may be counted for credit towards the degree by those only who have fulfilled the entrance requirement in two other foreign languages, and provided it is followed by German 1-2. *Both terms, three hours.* Professor TOY, Associate Professor BROWN, and Assistant Professor REIN.

1-2. Translation, sight reading, composition, grammar. Required of Freshmen in Group 3, elective in Group 2; Sophomore elective. *Both terms, three hours.* Professor TOY, Associate Professor BROWN, and Assistant Professor REIN.

11-12. Practice in writing and speaking German. Prerequisite, German 1-2. Junior and Senior elective. *Both terms, two hours.* Associate Professor BROWN.

21-22. Lessing: Minna von Barnhelm; Schiller: Die Jungfrau von Orleans, Wilhelm Tell; Goethe: Iphigenie auf Tauris or Egmont. Sophomore elective in Group 2; Junior and Senior elective. Prerequisite, German 1-2. *Both terms, three hours.* Assistant Professor REIN.

23-24. Romanticism in Germany; lectures; reading of selected texts. Junior and Senior elective. Prerequisite, German 1-2. *Both terms, three hours.* Professor TOY.

25-26. Wide reading of modern German prose, with lectures on the literature in the nineteenth century. Junior and Senior elective. Prerequisite, German 1-2. *Both terms, three hours.* Associate Professor Brown.

Courses 21-22, 23-24, and 25-26 are parallel in grade and offer an introduction to the study of German literature.

41-42. Goethe: Goetz von Berlichingen, Werther's Leiden, Tasso, Dichtung und Wahrheit, Hermann und Dorothea. Lectures on Goethe's life and work. Selected chapters of Scherer's *History of German Literature,* Franke's *History of German Literature,* and Bielschowsky's *Goethe, Sein Leben und Seine Werke* will be read. Junior and Senior elective. Prerequisite, German 21-22 or 23-24 or 25-26. *Both terms, three hours.* Associate Professor Brown.

This course may be elected only after consultation with the instructor.

43-44. Goethe: Faust, Parts I and II. Junior and Senior elective. Prerequisite, German 21-22 or 23-24 or 25-26. *Both terms, three hours.* Professor Toy.

This course may be elected only after consultation with the instructor.

45-46. Kleist and Hebbel. Translation and interpretation of selected dramas; lectures and collateral reading. Junior and Senior elective. Prerequisite, German 21-22 or 23-24 or 25-26. *Both terms, two hours.* Associate Professor Brown.

61-62. Gothic: Braune's *Gotische Grammatik;* selected parts of Paul's *Grundriss der Germanischen Philologie.* Introduction to Germanic Philology. Junior and Senior elective. Prerequisite, German 21-22 or 23-24 or 25-26. *Both terms, two hours.* Professor Toy.

63-64. Old High German: Braune's *Althochdeutsche Grammatik;* Braune's *Althochdeutsches Lesebuch.* Junior and Senior elective. Prerequisite, German 21-22 or 23-24 or 25-26. *Both terms, two hours.* Professor Toy.

67-68. Middle High German: Paul's *Mittelhochdeutsche Grammatik;* Bachmann's *Mittelhochdeutsches Lesebuch;* translation into New High German. Junior and Senior elective. Prerequisite,

German 21-22 or 23-24 or 25-26. *Both terms, three hours.* Assistant Professor REIN.

A certificate is granted to a student who has completed with credit any four courses exclusive of Course A.

DEPARTMENT OF GREEK

WILLIAM STANLY BERNARD, A. M., *Associate Professor of Greek.* PRESTON HERSCHEL EPPS, *Instructor in Greek.*

A. A course for students who have had no opportunity of studying Greek in the preparatory schools. This course may be counted for credit towards the degree by those only who have fulfilled the entrance requirement in two other foreign languages, and provided it is followed by Greek 1-2. Moss's *First Greek Reader;* Babbitt's *Greek Grammar;* Xenophon's *Anabasis. Both terms, four hours.* Associate Professor BERNARD.

1-2. Xenophon's Symposium: review of important grammatical principles; Homer's Iliad, Books I, II, and III, and *Odyssey,* Book VI; Lysias, Selected Speeches. Reading at sight. Required of Freshmen in Group 1, elective in Group 2. *Both terms, four hours.* Associate Professor BERNARD.

3-4. Plato, Apology and Crito; Euripides, Alcestis; Aristophanes, Frogs; reading at sight; lectures on Greek Literature. Sophomore elective in Groups 1 and 2. *Both terms, three hours.* Associate Professor BERNARD.

5-6. Prose Composition: elementary course, intended as supplementary to Greek 1-2. Open to students who are taking Greek 1-2 or 3-4. *Both terms, one hour.* Mr. EPPS.

11-12. Homer: rapid reading of the entire Odyssey. Junior and Senior elective. *Both terms, two hours.* Mr. EPPS.

21-22. Greek Drama: Euripides, Iphigenia Among the Taurians; Sophocles, Œdipus Tyrannus; Æschylus, Agamemnon; Aristophanes, Wasps; Aristotle, Poetics. Junior and Senior elective. *Both terms, three hours.* Associate Professor BERNARD.

34. Demosthenes, three Philippics. Junior and Senior elective. *Spring term, two hours.* Associate Professor BERNARD.

Not to be given in 1916-1917.

37-38. Greek Life and Literature: text-books, lectures, prescribed reading. Junior and Senior elective. Knowledge of the Greek language is not a prerequisite. *Both terms, two hours.* Associate Professor Bernard.

43-44. The Greek New Testament: The Acts of the Apostles, study of grammar and diction, comparison with English versions; the Gospels, with selections from the Epistles; the principles of textual criticism; sources and history of the Greek text and the versions. Junior and Senior elective. Prerequisite, Greek 3-4. *Both terms, two hours.* Associate Professor Bernard or Mr. Epps.

52. Greek Epigraphy and Palæography: a brief introduction to the study of Greek inscriptions and manuscripts. Lectures and reports. Senior elective. *Spring term, two hours.* Professor Howe.

The attention of students electing this course is called to Course 51 in the Latin Department.

53-54. Indo-European Philology; introductory course. History and methods of linguistic study; growth and classification of the Indo-European languages; linguistic palæontology. Junior and Senior elective. *Both terms, two hours.*

Not to be given in 1916-1917.

The attention of students electing this course is called to Course 73-74 in the Department of English and to Course 61-62 in the Department of Germanic Languages. This course is the same as Latin 53-54.

61-62. Classical Archæology: History and Principles of Greek and Roman architecture, sculpture, painting, with some account of the minor arts. Lectures with prescribed reading. Junior and Senior elective. *Both terms, two hours.* Associate Professor Bernard.

This course is the same as Latin 61-62.

A certificate is granted to a student who has completed with credit Courses 1-6 and four hours of elective work.

DEPARTMENT OF HISTORY

KEMP PLUMMER BATTLE, A. M., LL. D., *Professor Emeritus of History.*

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., *Alumni Professor of History.*

HENRY MCGILBERT WAGSTAFF, Ph. D., *Professor of History.*

WILLIAM WHATLEY PIERSON, JR., A. M., *Instructor in History.*

1-2. American History: a general course covering the social, political, and economic development of the United States; text-books, lectures, and readings. Required of Freshmen in Groups 2 and 3. *Both terms, three hours.* Professors HAMILTON and WAGSTAFF and Mr. PIERSON.

3-4. English History: a general course; text-books, lectures, and readings. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor WAGSTAFF.

5-6. The English Government and Constitution: a careful study of English constitutional and political development and of the present government of the English people. Lectures, text-books, and readings. Junior and Senior elective. *Both terms, two hours.* Professor HAMILTON.

7-8. The American Government and Constitution: a detailed study of political customs and institutions of the American people, followed in the spring term by a careful study of the Constitution of the United States by means of cases. Text-books, lectures, and readings. Junior and Senior elective. Open also to Sophomores who have attained a grade of 90 on History 1-2. *Both terms, three hours.* Professor HAMILTON.

9-10. Spanish-American History: the course especially emphasizes the history of the leading Spanish-American countries from the revolutionary period to the present; lectures, text-books, and readings. Junior and Senior elective; open also to Sophomores. *Both terms, two hours.* Mr. PIERSON.

11-12. Mediæval European History: a general course covering the period, 400-1648; text-books, readings, and lectures. Junior and Senior elective. *Both terms, two hours.* Professor WAGSTAFF.

This course alternates with course 13-14; to be omitted in 1916-1917.

13-14. Modern European History: a general course covering the period, 1648-1900; text-books, readings, and lectures. Junior and Senior elective. *Both terms, two hours.* Professor Wagstaff.

This course alternates with course 11-12; to be given in 1916-1917.

15-16. Classical History: a general course dealing largely with the Greeks and the Romans; text-books, lectures, and readings. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Mr. Pierson.

17-18. North Carolina History: a general study of the constitutional, social, economic, and political development of the State; lectures, readings, and reports. Junior and Senior elective; open also to certain approved Sophomores. *Both terms, two hours.* Professor Hamilton.

19-20. Civil War and Reconstruction: a detailed study of the constitutional, political, and economic phases of the period of Civil War and Reconstruction; lectures, readings, and reports. Senior elective. *Both terms, two hours.* Professor Hamilton.

21. The Middle Period: a careful study of the more important movements in the United States from the adoption of the Constitution to 1850; lectures, text-books, readings, and reports. Junior and Senior elective. *Fall term, two hours.* Professor Hamilton.

To be omitted in 1916-1917.

22. The Protestant Revolt: a detailed study of the causes, progress, and results of the Protestant movement, with special attention to the lives, doctrines, and influence of Luther and Calvin; text-books, lectures, and readings. Junior and Senior elective. *Spring term, two hours.* Mr. Pierson.

23. The French Revolution: a detailed study of the causes, progress, and results of the Revolution; text-books, lectures, and readings. Junior and Senior elective. *Fall term, two hours.* Mr. Pierson.

25-26. Modern Municipal Government: a course dealing with urban development and problems in Europe and the United States

during the nineteenth century; lectures, readings, and discussions. *Both terms, two hours.*

To be omitted in 1916-1917.

A certificate is granted to a student who has completed with credit fifteen hours in History.

For courses 27-28 and 29-30, see Graduate School.

DEPARTMENT OF LATIN

GEORGE HOWE, Ph. D., *Professor of the Latin Language and Literature.*
GEORGE KENNETH GRANT HENRY, Ph. D., *Assistant Professor of Latin.*
GUSTAVE ADOLPHUS HARRER, Ph. D., *Instructor in Latin.*
EDGAR WILLIS TURLINGTON, A. B., B. C. L., *Instructor in Latin.*

1-2. Cicero, De Senectute and De Amicitia; Livy, Book I; Horace, Odes and Epodes; sight reading. Required of Freshmen in Group 1, elective in Group 2. *Both terms, four hours.* Professor HOWE, Assistant Professor HENRY, and Messrs. HARRER and TURLINGTON.

3-4. Plautus, Menæchmi; Terence, Phormio; Horace, Satires and Epistles; Tacitus, Agricola and Germania. Sophomore elective in Groups 1 and 2. *Both terms, three hours.* Professor HOWE, Assistant Professor HENRY, and Messrs. HARRER and TURLINGTON.

5-6. Latin Prose Composition: based on Cicero and Livy; intended as supplementary to Latin 1-2. Open to students who are taking Latin 1-2 or 3-4. *Both terms, one hour.* Assistant Professor HENRY.

11-12. A Course for Teachers; embracing pronunciation, prosody, the art of reading Latin, and a classification of moods and tenses. Junior and Senior elective. *Both terms, two hours.* Assistant Professor HENRY.

21. The Private Life of the Romans: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 3-4. *Fall term, two hours.* Professor HOWE.

This course alternates with course 23; to be given in 1916-1917.

22. History of Roman Literature: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 3-4. *Spring term, two hours.* Professor Howe.

23. Roman Political Institutions: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 3-4. *Fall term, two hours.* Professor Howe.

This course alternates with course 21; to be omitted in 1916-1917.

31-32. Latin Dramatic Poetry: a study of the historical development of Latin comedy and tragedy, with some consideration of other dramatic forms; reading of selected plays of Plautus, Terence, and Seneca. Junior and Senior elective. *Both terms, three hours.* Assistant Professor Henry.

This course alternates with course 33-34; to be omitted in 1916-1917.

33-34. Latin Prose Literature: the course is concerned mainly with the study of the epistolary and historical literature; reading of selected letters from Cicero and Pliny and of passages from Livy, Tacitus, and other historians. Junior and Senior elective. *Both terms, three hours.* Assistant Professor Henry.

This course alternates with course 31-32; to be given in 1916-1917.

35-36. Roman Elegiac Poets: rapid reading of selected elegies of Catullus, Tibullus, Propertius, and Ovid; a study of the lives of the elegists; the history of Greek and Roman elegy. Junior and Senior elective. *Both terms, three hours.* Professor Howe.

This course alternates with course 37-38; to be omitted in 1916-1917.

37-38. The Latin Epic: Vergil will be the central theme of this course, but the development of the Latin Epic will be treated historically, and illustrative readings in other poets will be assigned. Junior and Senior elective. *Both terms, three hours.* Professor Howe.

This course alternates with course 35-36; to be given in 1916-1917.

51. Latin Epigraphy and Palæography: a brief introduction to the study of Latin inscriptions and manuscripts. Lectures and reports. Senior elective. *Fall term, two hours.* Professor Howe.

The attention of students electing this course is called to course 52 in the Department of Greek.

53-54. Indo-European Philology: introductory course. History and methods of linguistic study; growth and classification of the Indo-European languages; linguistic palæontology. Lectures. Junior and Senior elective. *Both terms, two hours.*

To be omitted in 1916-1917.

The attention of students electing this course is called to course 73-74 in the Department of English and to course 61-62 in the Department of Germanic Languages. The course is the same as Greek 53-54.

61-62. Classical Archæology: History and Principles of Greek and Roman architecture, sculpture, painting, with some account of the minor arts. Lectures with prescribed reading. Junior and Senior elective. *Both terms, two hours.* Associate Professor BERNARD.

This course is the same as Greek 61-62.

64. Architecture: the development of architectural principles and styles from the reign of Emperor Constantine to the Classical Revival. Lectures with prescribed reading. Junior and Senior elective. Prerequisite, Latin 61. *Spring term, two hours.* Associate Professor BERNARD.

This course is the same as Greek 64.

For courses 45-46 and 55-56, see Graduate School.

A certificate is granted to a student who has completed with credit courses 1-6, and six hours of elective work.

DEPARTMENT OF MATHEMATICS

WILLIAM CAIN, A. M., *Professor of Mathematics.*
ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathematics.*
MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*
THOMAS FELIX HICKERSON, A. M., *Associate Professor of Civil Engineering.*
ROBERT LANE JAMES, C. E., *Assistant Professor of Drawing.*
WILLIAM WALTER RANKIN, JR., A. M., *Instructor in Mathematics.*
HUBERT WALTER COLLINS, S. B., *Instructor in Mathematics and Surveying.*
GEORGE WALLACE SMITH, *Assistant in Mathematics.*
JOSEPH HENRY ALLRED, *Assistant in Mathematics.*

Pure Mathematics

1-2. Algebra: from Quadratics through Theory of Equations (Fine's *College Algebra*); Plane and Spherical Trigonometry and Logarithms. Required of Freshmen. *Both terms, four hours.* Professor Henderson, Associate Professor Hickerson, and Messrs. Rankin and Collins.

3-4. Brief course in Conic Sections; Elementary Course in Differential and Integral Calculus (Cain's *Brief Course in the Calculus*). Required of Sophomores in Group 3, elective in Groups 1 and 2. *Both terms, three hours.* Professors Cain and Henderson.

5-6. Descriptive Geometry; Shades, Shadows, and Elementary Perspective; lectures, recitations. Junior and Senior elective. Prerequisite, Drawing 1-2. *Both terms, two hours.* Assistant Professor James.

9. Theory of Equations. Sophomore, Junior, and Senior elective. Prerequisite, Mathematics 1-2. *Fall term, two hours.* Professor Henderson.

10. Differential Equations: elementary course. Junior and Senior elective. Prerequisite, fall term of Mathematics 11-12. *Spring term, two hours.* Professor Henderson.

11-12. Calculus, Analytic Mechanics. Junior and Senior elective. Prerequisite, Mathematics 3-4. *Both terms, three hours.* Professor Cain.

13-14. Theory of Equations (Burnside and Panton). Junior and Senior elective. Prerequisite, Mathematics 3-4. *Both terms, three hours.* Professor Henderson.

15-16. Differential Equations (Murray). Senior elective. Prerequisite, Mathematics 11-12. *Both terms, three hours.* Professor Henderson.

For additional courses, see Graduate School.

Civil Engineering

1-2. Surveying (Raymond) and Higher Surveying, Drawing. Junior and Senior elective. Prerequisite, Mathematics 1-2. *Both terms, three hours.* Professor STACY, Associate Professor HICKERSON, and Mr. COLLINS.

3-4. Elements of Statics and Dynamics (Loney). Junior and Senior elective. Prerequisite, Mathematics 1-2. *Both terms, two hours.* Associate Professor HICKERSON.

9-10. Road and Railroad Surveying and Engineering. Senior elective. Prerequisite, C. E., 1-2. *Both terms, three hours.* Professor STACY.

11-12. Highway Location, Construction, and Maintenance. Prerequisite, C. E. 1-2. Senior elective. *Both terms, two hours,* Associate Professor HICKERSON.

15-16. Mechanics of Engineering. Senior elective. Prerequisite, C. E. 3-4. *Both terms, three hours.* Assistant Professor JAMES.

19-20. Hydraulics and Sanitary Engineering. Senior elective. Prerequisite, Mathematics 11-12. *Both terms, three hours.* Professor STACY.

21-22. Retaining Walls and Dams, Arches. Senior elective. Prerequisite, Mathematics 11-12. *Both terms, two hours.* Professor CAIN.

23-24. Theory of Structures: outer and inner forces, shears, moments, influence lines, beams, plate girders, trusses, three-hinged arches, columns, graphical statics, deflection, continuous girders, masonry dams, reinforced concrete structures. Senior elective. Prerequisite, C. E. 15-16. *Both terms, four hours.* Associate Professor HICKERSON.

25-26. Bridge Design. Computations and drawings for the complete design of a wooden Howe truss, steel-plate girder, steel roof truss, steel highway bridge truss, steel railroad pin and riveted Pratt truss. Senior elective; to be taken in connection with C. E. 23-24. *Both terms, three hours.* Associate Professor HICKERSON.

Drawing

1-2. This course is designed to give the student who has never handled mathematical drawing instruments a thorough course of instruction in their use, and an understanding of the elementary principles of mechanical drawing. Instruction in free-hand lettering is given in connection with this course. Text-book, French's *Engineering Drawing. Both terms, two hours.* Assistant Professor James.

3-4. Civil Engineering Drawing: (*a*) Land survey and topographic mapping; (*b*) Advanced lettering: the Roman and Gothic letters and the arrangement of lettering on maps and titles; (*c*) Structural Drawing: a study of the drawing of girders, trusses, and various minor engineering structures. Prerequisite, Drawing 1-2. *Both terms, two hours.* Assistant Professor James.

5-6. Machine Drawing: A study of the representation of machine parts; detail and assembly drawings from models and sketches, careful attention being given to billing of material and to standard drawing-room practice and systems. The last few weeks of the course are devoted to the study of the elementary principles of mechanism and the solution of several problems based thereon. Prerequisite, Drawing 1-2. *Both terms, two hours.* Assistant Professor James.

11. The advanced theory and practice of perspective and its application to engineering structures. Senior elective. Prerequisites, Drawing 1-2 and Mathematics 5-6. *Fall term, two hours.* Assistant Professor James.

12. Stereotomy: a course in the application of Descriptive Geometry to the making of drawings for masonry structures, such as intersecting arches and walls, abutments, piers, and culverts. A study of warped surfaces and drawings for the helicoidal arch. Senior elective. Prerequisite, Mathematics 5-6. *Spring term, two hours.* Assistant Professor James.

DEPARTMENT OF PHILOSOPHY

HENRY HORACE WILLIAMS, A. M., B. D., *Professor of Philosophy.*
HARRY WOODBURN CHASE, Ph. D., *Professor of Psychology.*

Psychology

1-2. Introduction to Psychology. The aim of the course is to introduce the student to the subject-matter and methods of general psychology. Among the topics considered are the nervous system and its relation to mental life, habit, sensation, attention, perception, the higher intellectual processes, feeling and emotion, instinct, action. Special lectures will be devoted from time to time to the applications of psychology to different fields, and class demonstrations of typical experimental problems will be given. Text-books, lectures, class exercises, assigned readings. Junior and Senior elective. *Both terms, three hours.* Professor CHASE.

3-4. Genetic Psychology. This course attempts to trace in broad outline the development of behavior in the race and the individual. Typical experimental methods of attack on problems of animal behavior and their results will be briefly treated, with particular reference to their bearing on behavior in man. Mental development in the individual will be discussed, and various abnormal phenomena will be considered in their bearing on normal human behavior. Lectures, assigned readings, thesis. Junior and Senior elective. Prerequisite, Philosophy 1-2 or Education 41-42. *Both terms, two hours.* Professor CHASE.

The attention of students of Psychology is called to course 44 in the Department of Education. This is a laboratory course (three hours a week, spring term) for students in Psychology and in Educational Psychology, and may be elected on the satisfactory completion of the fall term of Philosophy 1-2.

Philosophy

11-12. Logic: the study of logic in life; lectures, with text-books. Junior and Senior elective. *Both terms, two hours.* Professor WILLIAMS.

13-14. Ethics: criticism and discussions. Junior and Senior elective. *Both terms, two hours.* Professor WILLIAMS.

15-16. Philosophy: a study of the forces that shape life; lectures; theses. Junior and Senior elective. *Both terms, three hours.* Professor Williams.

19-20. A Companion Course to Philosophy 15-16. The aim of the course is to sketch the forces masterful in modern life. Junior and Senior elective. *Both terms, three hours.* Professor Williams.

For course 17-18, see Graduate School.

DEPARTMENT OF PHYSICS

*Andrew Henry Patterson, A. M., *Professor of Physics.*
Parker Hayward Daggett, S. B., *Professor of Electrical Engineering and Acting Head of the Department.*
Elmer Adna Harrington, Ph. D., *Acting Professor of Physics.*
Vivian Leroy Chrisler, A. M., *Instructor in Physics.*
Lee Henry Edwards, *Assistant in Physics.*
Herman Glenn Baity, *Assistant in Physics.*
Charles Spurgeon Harris, *Assistant in Physics.*

[For description of Physical Laboratories, see page 257.]

A. Elementary Physics: lectures, with text-books, weekly written reviews, laboratory work. May be counted for entrance. *Both terms, three hours.* Messrs. Chrisler and Harris.

Laboratory fee, $1.00 a term.

1-2. General Physics: lectures, with text-books; problems; laboratory work. Required of Sophomores in Group 3; elective in Groups 1 and 2; prerequisite, Mathematics 1-2. *Both terms, three hours.* Professor Harrington and Messrs. Chrisler, Edwards, and Baity.

Laboratory fee, $1.50 a term.

3-4. Electricity and Magnetism: lectures and laboratory work. Junior and Senior elective. *Both terms, two hours.* Professor Harrington.

Laboratory fee, $2.00 a term.

* Absent on leave, 1915-1916.

5-6. Heat and Thermodynamics. Junior and Senior elective; prerequisite, Physics 1-2. *Both terms, two hours.* Professor HARRINGTON.

7-8. Modern Electrical Theory: the electron theory, electrolysis, conduction of electricity through gases, electrical nature of matter, radio-activity; lectures and recitations. Junior and Senior elective; prerequisite, Physics 1-2. *Both terms, two hours.* Professor HARRINGTON.

11-12. Descriptive Astronomy: a general course; lectures and recitations with use of lantern slides, telescope, etc. Junior and Senior elective; prerequisite, Physics 1-2. *Both terms, two hours.* Professor HARRINGTON.

[For courses in Electrical Engineering, see page 56.]

DEPARTMENT OF ROMANCE LANGUAGES

WILLIAM MORTON DEY, Ph. D., *Professor of the Romance Languages and Literatures.*

OLIVER TOWLES, Ph. D., *Associate Professor of the Romance Languages.*

EUGENE FRED PARKER, A. M., *Instructor in the Romance Languages.*

French

A. Elementary Course. Direct method of instruction; Beginners' French (Walter and Ballard). Reading: Le Français et sa Patrie (Talbot), and other texts. This course may be counted for credit towards the degree by those only who have fulfilled the entrance requirement in two other foreign languages, and provided it is followed by French 1-2. *Both terms, three hours.* Professor DEY, Associate Professor TOWLES, and Mr. PARKER.

1-2. Continuation of Course A. Direct method of instruction. Reading of modern French literature. Required of Freshmen in Group 3; elective in Group 2; Sophomore elective. *Both terms, three hours.* Associate Professor TOWLES and Mr. PARKER.

3-4. Advanced Course: studies in reading and writing French. French phonetics. Sophomore elective in Group 2; Junior and Senior elective; prerequisite, French 1-2. *Both terms, three hours.* Professor DEY.

5-6. French Literature: a general outline of its various periods. Lectures, reading, reports. Junior and Senior elective; prerequisite, French 1-2. *Both terms, three hours.* Associate Professor Towles.

11-12. French Literature in the Seventeenth Century. Classicism: Molière, Corneille, Racine, etc. Lectures, reading, reports. Junior and Senior elective; prerequisite, French 3-4 or 5-6. *Both terms, three hours.* Associate Professor Towles.

This course alternates with course 13-14; to be given in 1916-1917.

13-14. French Literature in the Eighteenth Century. Rousseau, Voltaire, Montesquieu, Lesage, Marivaux, Beaumarchais, etc. Lectures, reading, reports. Junior and Senior elective; prerequisite, French 3-4 or 5-6. *Both terms, three hours.* Professor Dey.

This course alternates with course 11-12; to be omitted in 1916-1917.

15-16. French Literature in the Nineteenth Century. Romanticism: Lamartine, Hugo, Vigny, Musset, etc., and later literary movements. Lectures, reading, reports. Junior and Senior elective. Prerequisite, French 3-4 or 5-6. *Both terms, three hours.* Professor Dey.

17-18. The French Drama. A study of the development of the drama in France. Lectures, reading, and much collateral reading, with reports. Junior and Senior elective. Prerequisite, French 3-4 or 5-6. *Both terms, two hours.* Professor Dey.

A certificate is granted to a student who has completed with credit any four courses exclusive of Course A.

For courses for graduate students, see Graduate School.

Spanish

A. Elementary Course. Direct method of instruction: All-Spanish Method (Hall). Reading of selected texts. This course may be counted for credit towards the degree by those only who have fulfilled the entrance requirement in two other foreign languages, and provided it is followed by Spanish 1-2. *Both terms, three hours.* Professor Dey.

1-2. Second-Year Course. Direct Method continued. Wide reading of modern Spanish authors. Junior and Senior elective. Prerequisite, Spanish 1-2. *Both terms, three hours.* Professor DEY.

Italian

1-2. Elementary Course: grammar, pronunciation; oral and written exercises; translation and reading at sight. Junior and Senior elective. Prerequisite, French 1-2. *Both terms, three hours.* Associate Professor TOWLES.

DEPARTMENT OF ZOOLOGY

HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*
WESLEY CRITZ GEORGE, A. M., *Instructor in Zoology.*
ROGER SHORE SIDDALL, *Assistant in Zoology.*
FRANCIS FOSTER BRADSHAW, *Assistant in Zoology.*

[For description of Biological Laboratories, see page 261.]

1-2. Elements of Zoology: an introductory course giving an outline of the classification and structure of animals, fundamentals of histology, embryology, and physiology, with some consideration of biological theories. Lectures with laboratory work. Sophomore, Junior, and Senior elective, and open to First-Year Medical students. *Both terms, three hours.* Professor WILSON and Mr. GEORGE.

Laboratory fee, $3.00 a term.

3-4. Comparative Anatomy and Embryology of the Vertebrates: dissection of types, especially amphioxus, petromyzon, fish, fowl, mammal; early stages in embryology of ascaris, starfish; segmentation and formation of germ layers in teleost and frog; germ layers and development of characteristic vertebrate organs in chick; selected stages in development of mammal (rabbit, pig); fundamentals of microscopic technique; laboratory work, with occasional lectures. Junior and Senior elective. *Both terms, three hours.* Professor WILSON and Mr. GEORGE.

Laboratory fee, $5.00 a term.

5-6. Morphology of the Invertebrates: comparative anatomy of the chief orders of invertebrate animals, with some consideration

of their life-histories; dissection and microscopic study of types; laboratory work, with occasional lectures. Junior and Senior elective. *Both terms, three hours.* Professor Wilson.

Laboratory fee, $5.00 a term.

A certificate is granted to a student who has completed with credit courses 1-6 and Botany 1-2.

SCHOOL OF APPLIED SCIENCE

FACULTY

Edward Kidder Graham, A. M., D. C. L., LL. D., President.
*Andrew Henry Patterson, A. M., Dean.
Parker Hayward Daggett, S. B., Acting Dean.

Francis Preston Venable, Ph. D., D. Sc., LL. D., *Francis Preston Venable Professor of Chemistry.*
William Cain, A. M., *Professor of Mathematics.*
Collier Cobb, A. M., *Professor of Geology and Mineralogy.*
Joseph Hyde Pratt, Ph. D., *Professor of Economic Geology.*
Charles Holmes Herty, Ph. D., *Professor of General and Industrial Chemistry.*
Archibald Henderson, Ph. D., *Professor of Pure Mathematics.*
*Andrew Henry Patterson, A. M., *Professor of Physics.*
Marvin Hendrix Stacy, A. M., *Professor of Civil Engineering.*
Alvin Sawyer Wheeler, Ph. D., *Professor of Organic Chemistry.*
Parker Hayward Daggett, S. B., *Professor of Electrical Engineering.*
James Munsie Bell, Ph. D., *Professor of Physical Chemistry.*
Elmer Adna Harrington, Ph. D., *Acting Professor of Physics.*
Thomas Felix Hickerson, A. M., S. B., *Associate Professor of Civil Engineering.*
Robert Lane James, C. E., *Assistant Professor of Drawing.*
Vivian Leroy Chrisler, A. M., *Instructor in Physics.*
John Eliphalet Smith, B. S., *Instructor in Geology.*
William Walter Rankin, A. M., *Instructor in Mathematics.*
Hubert Walter Collins, S. B., *Instructor in Mathematics.*
Edgar Ivan Staples, S. B., *Instructor in Electrical Engineering.*
Clarence Ballew Hoke, S. B., *Instructor in Chemistry.*
Carnie Blake Carter, M. S., *LeDoux Fellow and Assistant in Chemistry.*
Victor Aldine Coulter, M. S., *LeDoux Fellow and Assistant in Chemistry.*
Lucius Coleman Hall, *Assistant in Chemistry.*
Oscar Asa Pickett, *Assistant in Chemistry.*
Edwin Yates Keesler, A. B., *Assistant in Electrical Engineering.*

* Absent on leave, 1915-1916.

Martin Jones Davis, A. B., *Assistant in Geology.*
Curtis Avent Holland, *Assistant in Geology.*
Walter Leon Goldston, Jr., *Assistant in Geology.*
Lee Henry Edwards, *Assistant in Physics.*
Herman Glenn Baity, *Assistant in Physics.*
Charles Spurgeon Harris, *Assistant in Physics.*

COURSES LEADING TO THE DEGREE OF BACHELOR OF SCIENCE

In order to be recommended for the degree of Bachelor of Science, the student must have passed satisfactory examinations in all the studies required in one of the following courses outlined in this department, I, II, III, IV, and V. Each course combines instruction in certain sciences and their application to the arts, with certain other general studies deemed essential to a liberal education. These courses are designed to furnish the fundamental instruction and to prepare students to pursue the technical professions to which they lead. The courses leading to the degree are five in number.

I. Bachelor of Science in Chemical Engineering.
II. Bachelor of Science in Electrical Engineering.
III. Bachelor of Science in Civil and Highway Engineering.
IV. Bachelor of Science in Medicine.
V. Bachelor of Science in Soil Investigation.

ADMISSION

Candidates for admission to the School of Applied Science must present 14 units for unconditioned entrance. A complete list of these units and the requirements in each subject will be found on pages 34-42.

The specific requirements are as follows:

English *a, b, c,*	3. units
History *a,*	1. unit
Mathematics *a, b, c, d,*	3. units
French *a* or German *a,*	2. units
Science	1. unit
*Elective	4. units

At least 12 units must be offered at entrance.

* Not more than 3 units may be presented from the list of vocational subjects on page 34.

I. BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

FRESHMAN YEAR

English 1-2, Composition ..... *(3)
Mathematics 1-2, Advanced Algebra and Trigonometry..... (4)
German 1-2, Composition and Literature..... (3)
French 1-2, Composition and Literature..... (3)
Chemistry 1-2, General Chemistry..... (3)
Drawing 1-2, Freehand and Mechanical..... (2)

SOPHOMORE YEAR

English 7-4, Composition and Literature..... (3)
Mathematics 3-4, Analytics and Calculus..... (3)
Chemistry, 31-32, Qualitative Analysis..... (2)
Chemistry, 41-42, Quantitative Analysis..... (3)
Physics 1-2, General Course..... (3)
Drawing 5-6, Machine Drawing..... (2)

JUNIOR YEAR

Chemistry 8, Inorganic Chemistry, advanced.....(1½)
Chemistry 11-12, Industrial Chemistry..... (3)
Chemistry 45-46, Quantitative Analysis, advanced..... (2)
Chemistry 47-48, Gas Anal., Assay., Spectroscopic Anal..... (1)
Chemistry 61-62, Organic Chemistry, advanced..... (3)
Chemistry 81-82, Elementary Physical Chemistry ..... (3)
Geology 1-2, General Course..... (3)
E. E. 5, Steam Machinery..... (1)

SENIOR YEAR

Chemistry 18, History of Chemistry..... (1)
Chemistry 23-24, Research ..... (5)
Chemistry 63-64, Organic Chemistry..... (2)
Chemistry 83, Physical Chemistry, advanced.....(1½)
Chemistry 84, Electro-Chemistry .....(1½)
Geology 3-4, Mineralogy ..... (3)
E. E. 9-10, Electrical Energy..... (3)

* Numerals in parentheses indicate the number of hours a week.

II. BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

FRESHMAN YEAR

English 1-2, Composition ..... (3)
Mathematics 1-2, Advanced Algebra and Trigonometry..... (4)
Select one { German 1-2, Composition and Literature..... (3) / French 1-2, Composition and Literature..... (3)
Chemistry 1-2, General Chemistry..... (3)
Drawing 1-2, Freehand and Mechanical..... (2)

SOPHOMORE YEAR

English 7-4, Technical Composition and Literature..... (3)
Mathematics 3-4, Analytics and Calculus..... (3)
C. E. 3-4, Elements of Statics and Dynamics..... (2)
Physics 1-2, General Course..... (3)
Physics 3-4, Electricity and Magnetism ..... (2)
Chemistry 33, Qualitative Analysis.....(1½)
Chemistry 44, Quantitative Analysis..... (1)
Drawing 5-6, Machine Drawing..... (2)

JUNIOR YEAR

Mathematics 5-6, Descriptive Geometry..... (2)
Mathematics 11-12, Calculus and Analytic Mechanics..... (3)
C. E. 1-2, Surveying ..... (2)
C. E. 15-16, Mechanics of Engineering..... (3)
Physics 5-6, Thermodynamics ..... (2)
E. E. 5, Steam Machinery..... (1)
E. E. 11-12, Elements of Electrical Engineering..... (3)

SENIOR YEAR

C. E. 19-20, Hydraulics and Hydraulic Machinery..... (3)
E. E. 13, Theory of Electric Circuits..... (4)
E. E. 14, Direct and Alternating Current Machinery..... (2)
E. E. 18, Dynamo Design ..... (2)
E. E. 21, Electric Measuring Instruments.....(1½)
E. E. 22, Commercial Electric Testing.....(1½)
Select one { E. E. 31, Power Transmission.....(1½) / E. E. 33, Illuminating Engineering.....(1½)
Select one { E. E. 32, Telephone and Telegraph Engineering... (1) / E. E. 34, Electric Power Plants..... (1)

III. BACHELOR OF SCIENCE IN CIVIL AND HIGHWAY ENGINEERING

FRESHMAN YEAR

English 1-2, Composition ..... (3)
Mathematics 1-2, Advanced Algebra and Trigonometry..... (4)
Select one { French 1-2, Composition and Literature..... (3) / German 1-2, Composition and Literature..... (3) }
Chemistry 1-2, General Course..... (3)
Drawing 1-2, Freehand and Mechanical..... (2)

SOPHOMORE YEAR

English 7-4, Technical Composition and Literature..... (3)
Mathematics 3-4, Analytics and Calculus..... (3)
Physics 1-2, General Course..... (3)
Geology 1-2, General Course..... (3)
Drawing 3-4, Topographical ..... (2)
C. E. 1-2, Surveying..... (2)
C. E. 3-4, Elements of Statics and Dynamics..... (2)

JUNIOR YEAR

Mathematics 5-6, Descriptive Geometry..... (2)
Mathematics 11-12, Calculus and Analytic Mechanics..... (3)
Geology 31-32, Road Materials..... (1)
C. E. 9-10, Road and Railroad Surveying..... (3)
C. E. 11-12, Highway Engineering..... (3)
C. E. 15-16, Mechanics of Engineering..... (3)

SENIOR YEAR

C. E. 19-20, Hydraulic and Sanitary Engineering..... (3)
C. E. 21-22, Retaining Walls and Dams ..... (2)
C. E. 23-24, Theory of Structures..... (4)
C. E. 25-26, Bridge Design ..... (3)
E. E. 9-10, Electrical Energy ..... (3)

IV. BACHELOR OF SCIENCE IN MEDICINE

FRESHMAN YEAR

English 1-2, Composition ..... (3)
Mathematics 1-2, Advanced Algebra and Trigonometry..... (4)
Chemistry 1-2, General Course..... (3)

Botany 1-2, General Course ..... (3)

Select one:
- German 1-2, Composition and Literature ..... (3)
- French 1-2, Composition and Literature ..... (3)
- Latin 1-2 ..... (4)

SOPHOMORE YEAR

English 3-4, Composition and Literature ..... (3)
Physics 1-2, General Course ..... (3)
Zoology 1-2, General Course ..... (3)
Chemistry 33, Qualitative Analysis ..... (1½)
Chemistry 44, Quantitative Analysis ..... (1)

Select one:
- German 1-2 or 21-22 or 23-24 or 25-26 ..... (3)
- French 1-2 or 3-4 ..... (3)
- Latin 1-2 ..... (4)

Select one:
- Drawing 1-2, Freehand and Mechanical ..... (2)
- History 1-2, American ..... (3)
- Physics 3-4, Electricity and Magnetism ..... (2)

JUNIOR YEAR*

Organic Chemistry, fall term ..... (6)
Toxicology, spring term ..... (6)
Comparative Anatomy, fall term ..... (6)
Human Anatomy ..... (10)
Histology, fall term ..... (9)
Embryology, spring term ..... (6)
Pharmacy, spring term ..... (6)

SENIOR YEAR

Human Anatomy, fall term ..... (9)
Neuro-Anatomy, fall term ..... (6)
Bacteriology, fall term ..... (9)
Physiology ..... (7½)
Physiological Chemistry, fall term ..... (6)
Pathology, spring term ..... (9)
Pharmacology, spring term ..... (10)
Minor Surgery, spring term ..... (4)

* The Junior and Senior courses are given in the School of Medicine, where descriptions of courses may be found.

V. BACHELOR OF SCIENCE IN SOIL INVESTIGATION

FRESHMAN YEAR

English 1-2, Composition ..... (3)
Mathematics 1-2, Advanced Algebra and Trigonometry..... (4)
German 1-2, Composition and Literature..... (3)
Chemistry 1-2, General Course..... (3)
Drawing 1-2, Freehand and Mechanical..... (2)
Geology 1-2, General Course..... (3)

SOPHOMORE YEAR

English 7-4, Composition and Literature..... (3)
C. E. 1-2, Surveying..... (2)
Chemistry, 31-32, Qualitative Analysis..... (2)
Physics 1-2, General Course..... (3)
Drawing 3-4, Mechanical and Topographical..... (2)
Botany 1-2, General Course..... (3)

JUNIOR YEAR

Chemistry 41-42, Quantitative Analysis..... (3)
Botany 3-4, Plant Physiology ..... (3)
Geology 3-4, Mineralogy ..... (3)
Geology 21-22, Advanced Physiography..... (3)
French 1-2, Composition and Literature..... (3)

SENIOR YEAR

Chemistry 49-24, Advanced Quantitative Analysis..... (5)
Chemistry 11-12, Industrial Chemistry..... (3)
Geology 23-24, Origin and Nature of Soils..... (2)
Geology 26, Soils of the United States.....(1½)
Geology 27-28, Mapping ..... (2)
Geology 51-52, Research ..... (3)

COURSES OF INSTRUCTION

Only those scientific and language courses which are specifically required in the School of Applied Science are repeated here. For complete description of other courses, see page 47.

DEPARTMENT OF CHEMISTRY

[For description of Chemical Laboratories, see page 259.]

1-2. General Descriptive Chemistry: a study of the elements and their compounds; lectures with laboratory work. Students with Chemistry credits may take special laboratory work in inorganic preparations. *Both terms, three hours.* Professor VENABLE, Messrs. HOKE and HALL.

Laboratory fee, $2.50 a term.

8. Inorganic Chemistry: a detailed study of the reactions of the elements and their compounds; lectures and text-books. Required of Juniors in Course I. Prerequisite, Chemistry 41-42. *Spring term, three hours.* Professor HERTY.

11-12. Industrial Chemistry: the methods and economics of chemical industries, with special reference to those industries utilizing the products of the Southern States. Required of Juniors in Courses I and V. Prerequisite, Chemistry 1-2. *Both terms, three hours.* Professor HERTY.

13-14. Chemistry of Foods and Sanitation: composition of foods, their preservation, adulteration, and industrial production. Discussion of sanitation, disinfection, sewage disposal. Prerequisite, Chemistry 1-2. *Both terms, two hours.* Professor VENABLE.

18. History of Chemistry. Required of Seniors in Course I. Prerequisite, Chemistry 61-62 and 81-82. *Spring term, two hours.* Professor VENABLE.

23-24. Research for Seniors. Required of Seniors in Course I. Prerequisite, Chemistry 45-46, 47-48, 61-62, 81-82. *Both terms, five hours.* Professors HERTY, VENABLE, WHEELER, and BELL.

Laboratory fee, $12.50 a term.

31-32. Qualitative Analysis: laboratory work with lectures. Required of Sophomores in Courses I and V. *Both terms, two hours.* Professor WHEELER and Mr. CARTER.

Laboratory fee, $5.00 a term.

33. Qualitative Analysis. Practice is given in the qualitative analysis of known and unknown mixtures. Laboratory work with lectures. Required of Sophomores in Courses II and IV. *Fall term, three hours.* Professor WHEELER and Mr. COULTER.

Laboratory fee, $7.50.

41-42. Elementary Quantitative Analysis: laboratory work, lectures, and stoichiometric exercises; a grounding in analytical methods. Required of Sophomores in Course I and of Juniors in Course V. Prerequisite, Chemistry 1-2. *Both terms, three hours.* Professor BELL.

Laboratory fee, $7.50 a term.

44. Elementary Quantitative Analysis: a brief course in gravimetric methods, followed by a more extended course in volumetric methods. Required of Sophomores in Courses II and IV. *Spring term, two hours.* Professor BELL and Mr. COULTER.

Laboratory fee, $5.00.

45-46. Technical Quantitative Analysis: laboratory work; extension of course 41-42 along technical lines. Required of Juniors in Course I. Prerequisite, Chemistry 41-42. *Both terms, two hours.* Professor HERTY.

Laboratory fee, $5.00 a term.

47-48. Gas Analysis, Assaying, and Spectroscopic Analysis. Lectures and laboratory work. Required of Juniors in Course I. Prerequisite, Chemistry 41-42. *Both terms, one hour.* Professor BELL.

Laboratory fee, $2.50 a term.

61-62. Organic Chemistry. Required of Juniors in Course I. Prerequisite, Chemistry 1-2 and 31-32. *Both terms, three hours.* Professor Wheeler.

Laboratory fee, $4.00 a term.

63-64. Organic Chemistry: laboratory work, including analysis of (*a*) pure organic compounds, (*b*) food products, and (*c*) commercial dyestuffs. Required of Seniors in Course I. *Both terms, two hours.* Professor Wheeler.

Laboratory fee, $6.00 a term.

81-82. Elementary Physical Chemistry. Required of Juniors in Course I. Prerequisite, Chemistry 41-42. *Both terms, three hours.* Professor Bell.

Laboratory fee, $2.50 a term.

83. Physical Chemistry: lectures and text-books, with laboratory work. Required of Seniors in Course I. Prerequisite, Chemistry 81-82. *Fall term, three hours.* Professor Bell.

Laboratory fee, $2.50.

84. Electro-Chemistry: theory and application of electricity to chemical processes. Required of Seniors in Course I. Prerequisite, Chemistry 41-42 (or 44). *Spring term, three hours.* Professor Bell.

Laboratory fee, $2.50.

The Journal Club meets fortnightly. The current journals, American, English, German, and French, both the purely scientific and technical, are reviewed by the students and instructors. Attendance is expected of students in advanced courses.

DEPARTMENT OF ELECTRICAL ENGINEERING

[For description of Electrical Engineering Laboratories, see page 257.]

5. Steam Machinery: a general elementary course in the construction, operation and use of the machinery of modern power plants, designed to give a working knowledge of the apparatus in preparation for course 34. The topics considered are the construction and operation of steam boilers, mechanical stokers, feed-pumps and feed water heaters, simple slide-valve engines, multiple-expan-

sion engines, steam turbines, and gas engines. A brief study is made of fuels and combustion, draft, valves, and valve-gears. Text: Allen and Bursley's *Heat Engines.* Required of Juniors in Courses I and II. Prerequisites, Drawing 1-2 and Physics 1-2. *Fall term, two hours.* Mr. STAPLES.

9-10. Generation, Transmission, and Utilization of Electrical Energy. This course is designed primarily for students of Chemical and Civil Engineering and others who desire to obtain a general practical knowledge of electrical apparatus, including direct and alternating-current dynamos, transformers, motor starters and controllers, storage batteries, and incandescent and arc lamps. Especial attention is paid to commercial applications of electric power, such as motor-drive for manufacturing purposes, electric traction and hoisting, electrical illumination, automobile and train lighting, and the transmission and distribution of power by electricity. Text: Gray's *Principles and Practice of Electrical Engineering.* Lectures, recitations, and laboratory work. Required of Seniors in Courses I and III. Prerequisites, Mathematics 3-4 and Physics 1-2. *Both terms, three hours.* Mr. STAPLES and Mr. KEESLER.

Laboratory fee, $3.00 a term.

11-12. Elements of Electrical Engineering: a general survey of the fundamental principles of electric circuits and machinery, designed to furnish a thorough preparation for advanced work in Electrical Engineering. During the first term a study is made of the underlying principles and laws of the electrostatic and the electromagnetic field, direct-current circuits and the theory, structural features and operating characteristics of direct-current machinery. The work of the second term is devoted principally to an extension of the laws of direct-current circuits to the phenomena of alternating-current circuits. The construction and operating features of alternating-current machines are also considered briefly in comparison with the corresponding direct-current equivalents. Text: Christie's *Electrical Engineering.* Required of Juniors in Course II. Prerequisites, Mathematics 3-4 and Physics 1-2 and 3-4. *Both terms, three hours.* Professor DAGGETT and Messrs. STAPLES and KEESLER.

Laboratory fee, $3.00 a term.

13. Theory of Electric Circuits. This is an advanced course consisting of an intensive study of the laws of the electric, magnetic and dielectric circuits based on the works of Karapetoff and Steinmetz. Emphasis is placed on the circuital relations existing in these three circuits, and the treatment of each is, so far as possible, identical. A thorough study is made of alternating-current circuits, the aim being to correlate the work with the laws of direct-current circuits in order that a proper perspective may be obtained and a standard method of treatment adopted for the study of the various types of dynamo-electric machinery. The laboratory work comprises a study of the effects of inductance and capacitance in circuits, hysteresis and eddy-currents in iron, e. m. f. wave-shapes, the electrical relations in polyphase circuits, and the effects of iron in alternating-current circuits. Text: Karapetoff's *The Electric Circuit* and *The Magnetic Circuit,* and Steinmetz's *Alternating Current Phenomena.* Required of Seniors in Course II. Prerequisites, Mathematics 11-12 and E. E. 11-12. *Fall term, eight hours.* Professor Daggett and Mr. Staples.

Laboratory fee, $5.00.

14. Direct and Alternating-Current Machinery. This course consists of an analytical study of the performance of electrical machines. The work is correlated closely with E. E. 18. In general are considered such questions as predetermination of e. m. f. wave-shapes of alternators; leakage-reactance of windings; exciting ampere-turns in direct-current machines, synchronous-generators, motors, converters and induction machines; armature reaction and regulation of direct-current machines and alternators. For the laboratory work a predetermination of the performance of the machine is made from the dimensions and design constants, and the results are checked by actual test of the performance in the laboratory. Required of Seniors in Course II. Prerequisite, E. E. 13. *Spring term, four hours.* Professor Daggett and Mr. Staples.

Laboratory fee, $5.00.

18. Dynamo Design. A course in the principles of the design of standard electric machines. Emphasis is placed on logical analysis of the various problems, both from a theoretical point of view and in the light of commercial limitations and economic conditions

involved in manufacturing. The work comprises a study of the design, construction, and proportions of direct-current dynamos, alternators, induction motors, synchronous converters and transformers, and parallels closely the work in course 14. Text: Gray's *Electric Machine Design,* supplemented by wide reading in the works of Hobart, Adams, Arnold, and others. Required of Seniors in Course II. Must be accompanied by E. E. 14. *Spring term, four hours.* Professor Daggett.

21. Electric Measuring Instruments: a study of the theory, construction, and methods of use of the various instruments used in electric measurements and testing—ammeters, voltmeters, wattmeters, watthour meters, galvanometers, potentiometers, phase and frequency meters, synchroscopes. In the laboratory a study is made of the methods of calibration, especial attention being devoted to the testing of watthour meters. Considerable attention is also given to the errors involved in measurements. Text: Jansky's *Electric Meters.* Required of Seniors in Course II. Prerequisite, E. E. 11-12. *Fall term, three hours.* Professor Daggett and Mr. Staples.

Laboratory fee, $5.00.

22. Commercial Electric Testing. This course consists principally of a laboratory study of the methods of testing electrical machinery used in commercial practice. Direct and alternating-current machines treated under the following heads: temperature tests; core-loss, friction and windage, and efficiency; voltage regulation of generators and speed regulation of motors; commutation tests and adjustment of commutating pole motors; insulation testing; methods of loading, and miscellaneous tests. Text: Karapetoff's *Experimental Electrical Engineering.* Required of Seniors in Course II. Prerequisites, E. E. 13 and 21. *Spring term, three hours.* Professor Daggett and Mr. Staples.

Laboratory fee, $5.00.

31. Electric Power Transmission. A course of lectures and recitations on the design of long-distance transmission lines. (*a*) Economic principles involved in the preliminary design and layout. (*b*) Electrical principles: line materials and constants; regulation; transient phenomena; insulation and lightning protection. (*c*) Mechanical design: sag of conductors; spans; poles and towers. Text:

Still's *Overhead Electric Power Transmission.* Senior elective in Course II. Prerequisite, E. E. 11-12. *Fall term, three hours.* Professor Daggett.

32. Telephone and Telegraph Engineering. This course deals with the principles of the transmission of intelligence by telephone and telegraph, including a brief study of radio-telegraphy. Especial attention is given to the theory of telephonic transmission, loading coils, inductive disturbances, and the layout of the telephone plant. In the laboratory study is made of standard telephone instruments, switchboards and circuits, and practice is given in the location of faults in cables and lines. Senior elective in Course II. Prerequisite E. E. 13. *Spring term, two hours.* Professor Daggett.

Laboratory fee, $2.00.

33. Illuminating Engineering. The work of this course begins with a study of the physics of light, including an experimental lecture by Professor Patterson, followed by lectures on the physiological and psychological aspects of the subject by Professors Bullitt and Chase. Considerable time is then devoted to the subject of photometry, after which a study is made of modern sources of artificial light. Finally are considered the principles of design of interior and exterior illumination, especial attention being devoted to the conservation of the eyesight and the attainment of the highest efficiency consistent with the best artistic effect. Senior elective in Course II. Prerequisite, E. E. 11-12. *Fall term, three hours.* Professor Daggett.

Laboratory fee, $3.00.

34. Electric Power Plants. A continuation of E. E. 5 from the standpoint of the choice of machines and apparatus and the layout of the plant as a whole. Considerable attention is devoted to the electrical control apparatus and switch-gear. A brief survey is made of the organization and management of power plants, including the questions of rates and relations to the public. Text: Meyer's *Steam Power Plants.* Senior elective in Course II. Prerequisites, Physics 5-6 and E. E. 5 and 11-12. *Spring term, two hours.* Mr. Staples.

DEPARTMENT OF ENGLISH

1-2. Freshman English. Themes are written throughout the year; analytical outlines are prepared about twice a month; a dozen expository essays are studied in detail, with chief emphasis on the ideas contained in them. In the second term attention is given to narration. The course aims at (1) correct writing, (2) clear thinking, and (3) thorough reading. Required of Freshmen. *Both terms, three hours.* Associate Professor Foerster (Chairman), Associate Professors Booker and Hanford, Messrs. Dargan, Thornton, Long, and Merten.

4. The History of English Literature. A study of representative prose and verse of the eighteenth and nineteenth centuries. The stress falls upon the actual study of literature rather than literary history, biography, or criticism, but a syllabus is used as a guide. Reports, outlines, and summaries based on the material read are required at frequent intervals, and class work consists of discussions by instructors and students rather than of lectures. Required of Sophomores in Courses I, II, III, V. *Spring term, three hours.* Mr. Thornton.

The attention of students taking this course is called to course 5-6.

7. Technical Composition for Engineers: a study of the forms of scientific writing—description, exposition, directions—with the aim of developing clearness, accuracy, and logical thinking. Preparation and criticism of daily and weekly themes, and reading of illustrative literature from engineering magazines. Text-book: Sypherd's *Handbook of English for Engineers.* Required of Sophomores in Courses I, II, III, and V. *Fall term, three hours.* Mr. Thornton.

DEPARTMENT OF GEOLOGY AND MINERALOGY

1-2. Elementary Geology: lectures with field work; laboratory work on the common minerals and rocks. Required of Sophomores in Courses II, III, and V and of Juniors in Course I. *Both terms, three hours.* Professor Cobb, Messrs. Davis, Holland, and Goldston.

Laboratory fee, $1.00 for the fall term, $3.00 for the spring term.

3-4. Mineralogy: crystallography, physical and chemical properties of minerals, blowpipe analysis, determinations; lectures, laboratory, and field work: Dana's *Manual of Mineralogy* (Ford). Required of Juniors in Course V and Seniors in Course I. Prerequisite, Geology 1-2 and Chemistry 1-2. *Both terms, three hours.* Mr. Smith.

Laboratory fee, $5.00 a term.

11-12. Economic Geology: ore deposits, coal, oil and gas, clays, building stone, cement materials, fertilizers, underground waters, etc.; occurrence, methods of exploitation, production, and conservation of mineral resources; lectures, laboratory, and field work. Junior and Senior elective. Prerequisite, Geology 1-2 and Chemistry 1-2. *Both terms, three hours.* Mr. Smith.

Laboratory fee, $1.00 a term.

21-22. Advanced course in Physiography. Senior elective. Prerequisite, Geology 1-2. Required in Junior year of Course V. *Both terms, three hours.* Professor Cobb.

Laboratory fee, $2.00 a term.

23-24. Origin and Nature of Soils: field work, laboratory and theses. Students in this course are expected to keep Saturday open for field work. Required of Seniors in Course V. *Both terms, three hours.* Professor Cobb.

Laboratory fee, $3.00 a term.

26. Soils of the United States: an introductory study of the chief soil provinces, soil series, and soil areas of the United States, with special reference to the soils of North Carolina. Required of Seniors in Course V. *Spring term, two hours.* Professor Cobb and Mr. Hearn.

27-28. Soil Mapping: preparation of large scale soil maps of the Chapel Hill region. Required of Seniors in Course V. *Both terms, two hours.* Professor Cobb and Mr. Hearn.

31-32. Road Materials: rocks, sands, clays, asphalts, concrete, dust preventives, etc., their properties and adaptations; laboratory and field work. Required of Juniors in Course III. Prerequisite, Geology 1-2. *Both terms, one hour.* Mr. Smith.

Laboratory fee, $1.00 a term.

42. Mineral and Ore Deposits: lectures supplemented by laboratory and field work. *Twenty-four lectures* (*spring term*). Professor PRATT.

43-44. Advanced Work in Mineralogy. *One hour.* Professor PRATT.

51-52. Advanced Field Work and special research in Geology or Geography: problems and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Required of Seniors in Course V. Prerequisite, two courses in Geology. *Both terms, three hours.* Professor COBB.

The Geological Seminary meets fortnightly for review and discussion of current geological literature, and for the presentation of original papers.

DEPARTMENT OF GERMANIC LANGUAGES

A. Elementary Course: grammar, written and oral exercises; translation; sight reading. This course may be counted for credit towards the degree by those only who have fulfilled the entrance requirement in two other foreign languages, and provided it is followed by German 1-2. *Both terms, three hours.* Professor TOY, Associate Professor BROWN, and Assistant Professor REIN.

1-2. Translation, Sight Reading, Composition, Grammar. Required of Freshmen in Courses I and V; elective in Courses II, III, IV. *Both terms, three hours.* Professor TOY, Associate Professor BROWN, and Assistant Professor REIN.

For courses 21-22, 23-24, 25-26, see page 68.

DEPARTMENT OF MATHEMATICS

Pure Mathematics

1-2. Algebra, from Quadratics through Theory of Equations (Fine's *College Algebra*); Plane and Spherical Trigonometry and Logarithms. Required of Freshmen. *Both terms, four hours.* Professor HENDERSON, Associate Professor HICKERSON, and Messrs. RANKIN and COLLINS.

3-4. Brief Course in Conic Sections (Fine and Thompson's *Coordinate Geometry*); Elementary Course in Differential and Inte-

gral Calculus (Cain's *Brief Course in the Calculus*). Required of Sophomores. *Both terms, three hours.* Professors Cain and Henderson.

5-6. Descriptive Geometry; Shades, Shadows, and Elementary Perspective. Required of Juniors in Courses II and III. *Both terms, two hours.* Assistant Professor James.

11-12. Calculus, Analytic Mechanics. Required of Juniors in Courses II and III. Prerequisite, Mathematics 3-4. *Both terms, three hours.* Professor Cain.

Civil Engineering

1-2. (*a*) Surveying (Raymond) and (*b*) Higher Surveying. Required of Sophomores in Courses III and V and of Juniors in Course II. *Both terms, two hours.* Professor Stacy, Associate Professor Hickerson, and Mr. Collins.

3-4. Elements of Statics and Dynamics (Loney). Required of Sophomores in Courses II and III. *Both terms, two hours.* Associate Professor Hickerson.

9-10. Railroad Surveying and Railroad Engineering. Required of Juniors in Course III. Prerequisite, C. E. 1-2. *Both terms, three hours.* Professor Stacy.

11-12. Highway Location, Construction, and Maintenance. Required of Juniors in Course III. *Both terms, two hours.* Associate Professor Hickerson.

15-16. Mechanics of Engineering. Required of Juniors in Courses II and III. Prerequisite, C. E. 3-4. *Both terms, three hours.* Assistant Professor James.

19-20. Hydraulics and Sanitary Engineering. Required of Seniors in Courses II and III. Prerequisite, Mathematics 11-12. *Both terms, three hours.* Professor Stacy.

21-22. Retaining Walls and Dams; Arches. Required of Seniors in Course III. Prerequisite, Mathematics 11-12. *Both terms, two hours.* Professor Cain.

23-24. Theory of Structures. Outer and inner forces, shears, moments, influence lines, beams, plate girders, trusses, three-hinged arches, columns, graphical statics, deflection, continuous girders, masonry dams, reinforced concrete structures. Required of Seniors in Course III. Prerequisite, C. E. 15-16. *Both terms, four hours.* Associate Professor Hickerson.

25-26. Bridge Design. Computations and drawings for the complete design of a wooden Howe truss, steel plate girder, steel roof truss, steel highway bridge truss, steel railroad pin, and riveted Pratt truss. Required of Seniors in Course III; to be taken in connection with C. E. 23-24. *Both terms, three hours.* Associate Professor Hickerson.

Engineering Drawing

1-2. This course is designed to give the student who has never handled mathematical drawing instruments a thorough course of instruction in their use and an understanding of the elementary principles of mechanical drawing. Instruction in free-hand lettering is given in connection with the course. Text-book: French's *Engineering Drawing.* Required of Freshmen in Courses I, II, III, V; Sophomore elective in Course IV. *Both terms, two hours.* Assistant Professor James.

3-4. Civil Engineering Drawing: (*a*) land survey and topographic mapping; (*b*) advanced lettering: the Roman and the Gothic letters and the arrangement of lettering on maps and titles; (*c*) structural drawing: a study of the drawing of girders, trusses, and various minor engineering structures. Required of Sophomores in Courses III and V. Prerequisite, Drawing 1-2. *Both terms, two hours.* Assistant Professor James.

5-6. Machine Drawing. A study of the representation of machine parts; detail and assembly drawings from models and sketches, careful attention being given to billing of material and to standard drawing-room practice and systems. The last few weeks of the course are devoted to the study of the elementary principles of mechanism and the solution of several problems based thereon. Required of Sophomores in Courses I and II. Prerequisite, Drawing 1-2. *Both terms, two hours.* Assistant Professor James.

11. Advanced theory and practice of perspective and its application to engineering structures. Senior elective. Prerequisite, Drawing 1-2 and Mathematics 5-6. *Fall term, two hours.* Assistant Professor James.

12. Stereotomy: a course in the application of descriptive geometry to the making of drawings for masonry structures, such as intersecting arches and walls, abutments, piers, and culverts; a study of warped surfaces and drawings for the helicoidal arch. Senior elective. Prerequisite, Mathematics 5-6. *Spring term, two hours.* Assistant Professor James.

DEPARTMENT OF PHYSICS

[For description of Physical Laboratories, see page 257.]
[For courses in Electrical Engineering, see page 95.]

A. Elementary Physics: lectures, with text-book, written reviews, laboratory work. May be counted for entrance. *Both terms, three hours.* Messrs. Chrisler and Harris.

Laboratory fee, $1.00 a term.

1-2. General Physics: lectures, with text-books; problems; laboratory work. Required of Sophomores. Prerequisite, Mathematics 1-2. *Both terms, three hours.* Professor Harrington and Messrs. Chrisler, Edwards, and Baity.

Laboratory fee, $1.50 a term.

3-4. Electricity and Magnetism: lectures, with laboratory work. Required of Sophomores in Course II. *Both terms, two hours.* Professor Harrington.

Laboratory fee, $2.00 a term.

5-6. Heat and Thermodynamics. Required of Juniors in Course II. Prerequisite, Physics 1-2. *Both terms, two hours.* Professor Harrington.

DEPARTMENT OF ROMANCE LANGUAGES

French

A. Elementary Course. Direct method of instruction: Beginners' French (Walter and Ballard). Reading: Le Français et sa Patrie (Talbot) and other texts. This course may be counted for credit towards the degree by those only who have fulfilled the entrance requirement in two other foreign languages, and provided that it is followed by French 1-2. *Both terms, three hours.* Professor Dey, Associate Professor Towles, and Mr. Parker.

1-2. Continuation of Course A. Direct method of instruction. Reading of modern French literature. Freshman elective in Courses II, III, and IV. *Both terms, three hours.* Associate Professor Towles and Mr. Parker.

SCHOOL OF EDUCATION

FACULTY

Edward Kidder Graham, A. M., D. C. L., LL. D., President.
Marcus Cicero Stephens Noble, *Professor of Pedagogy and Dean of the School of Education.*
Nathan Wilson Walker, A. B., *Professor of Secondary Education and State Inspector of High Schools.*
Harry Woodburn Chase, Ph. D., *Professor of Psychology.*
Louis Round Wilson, Ph. D., *Professor of Library Administration.*
Lester Alonzo Williams, Pd. D., *Professor of Rural Education.*
....., *Professor of School Administration.*

ADMISSION

Candidates for admission to the School of Education must present 14 units for unconditioned entrance. The units offered must be so selected as to conform to the requirements for entrance to any one of the three courses leading to the degree of Bachelor of Arts in the College of Liberal Arts, as stated on page 33 of the general catalogue. A complete list of the units which may be offered and the requirements in each subject will be found on pp. 34-42 of the general catalogue.

EQUIPMENT

In 1912 a gift of $40,000 was received from the Peabody Board, to be used in the construction of a building for the School of Education. The George Peabody Building was accordingly erected, and since its completion in the summer of 1913 has afforded ample space for the work of the School. It is also the headquarters of the extension work of the University, and of the department of Applied Rural Economics and Sociology. The building, in addition to class rooms and offices, is provided with an auditorium, library room, museum, and laboratory. The library contains about 1,500 works on education and psychology, in addition to sets of the more important periodicals. The School receives all the important journals in the fields of education and

psychology which are published in the country, as well as several foreign journals. The current numbers of most of these, together with the more technical works, are available for the use of advanced students in the reading room at the Peabody Building. The laboratory equipment, while limited, is sufficient for laboratory work in Educational Psychology and for work on simple research problems.

A beginning is being made of a collection for the pedagogical museum which will represent particularly the schools of North Carolina.

Ample opportunity is afforded for field and observation work, and students who desire it may be placed for a week or two at a time in various school systems in the State in order to do actual teaching under careful supervision.

COURSE LEADING TO THE DEGREE OF BACHELOR OF ARTS IN EDUCATION

In order to be recommended for the degree of Bachelor of Arts in Education, the student must have passed satisfactory examinations in all the studies in the four years course outlined below.

The course is designed to prepare students for service as teachers, principals, and superintendents.

Freshman Year

English 1-2(3)*
Mathematics 1-2(4)
Select two:
- Greek 1-2(4)
- Latin 1-2(4)
- German 1-2(3)
- French 1-2(3)
- Chemistry 1-2(3)

History 1-2(3)
Education A (1)

Chemistry may be selected only by students whose other selection in this group is German. History is not required of students who select both Greek and Latin.

*Numerals in parentheses indicate the number of hours a week.

Sophomore Year

English 3-4(3)
Education 1-2(3)
Select one: Greek 3-4(3), Latin 3-4(3), German 1-2(3), French 1-2(3), German 21-22(3)*, French 3-4(3)
Science (3)
Elective (3)

The three hours in Science may be selected from any of the courses in Science in the general catalogue which are open to Sophomores. Students who have pursued work in only one foreign language during Freshman year must choose a second foreign language as their elective in Sophomore year.

Junior Year

Education 41-42 (3)
Education 51-52 (3)
Education 53-54 (2)
Academic Elective (8-9)

Senior Year

Education 5-6(3)
Education Elective (5-6)
Academic Elective (8-9)

REGULATIONS

Candidates for the degree of Bachelor of Arts in Education will be registered for the four years of the course in the School of Education, and must pursue during Freshman year the work required in one of the three courses listed in the general catalogue which lead to the degree of Bachelor of Arts, with the exception of Public Speaking. In addition, candidates must pursue Education A in Freshman year. In Sophomore year, Education 1-2 must be pursued, and students may, by proper use of their elective hours, carry all the required work in one of the three courses leading to the degree of Bachelor of Arts.

* German 23-24 or 25-26 may be substituted in place of 21-22.

Sophomores registered in the School of Education must, by May 15th of their Sophomore year, hand to the Registrar a list of the Academic Electives chosen for the work of Junior year (eight to nine hours). These electives are to be chosen from the courses in the general catalogue which are open to Juniors. None of the courses offered in the School of Education may be elected to satisfy this requirement. One course must be chosen from the work offered in each of the three general divisions under which the various departments are grouped in the general catalogue. No election will be accepted by the Registrar which has not been approved by the Dean of the School of Education and by Professor Chase.

Juniors registered in the School of Education must, by May 15th of their Junior year, hand to the Registrar a list of the subjects selected by them for the work of Senior year (five to six hours in Education, eight to nine hours from courses in the general catalogue open to Seniors). One course must be chosen from a department elected in Junior year; the remaining hours are free election in any division, except that no additional work in Education may be elected. No election will be accepted by the Registrar which has not been approved by the Dean of the School of Education and by Professor Chase.

COURSES OF INSTRUCTION

THE SCIENCE AND PRACTICE OF EDUCATION

A. Introduction to Education. The aim of this course is to introduce the student to a few of the main problems and fundamental principles in the field of education. Lectures will be given by the various members of the faculty of the School of Education. Lectures, assigned readings. Required of Freshmen in the School of Education; not open to Academic students. *Both terms, one hour.*

1-2. Principles and Methods of Elementary Education. A course for teachers in elementary and grammar grades and for principals and superintendents. A careful study of the principles underlying the successful teaching of elementary branches in the best public and private schools; the preparation of written model lessons for the grades; observation and criticism of teaching and occasional observation of teaching in the village school. Required of Sophomores in the School of Education. *Both terms, three hours.* Professor NOBLE.

3. Theory and Practice of Education. A study of the theory and practice of modern education from the viewpoint of both the teacher and the citizen; the selection of the material of instruction; the development and arrangement of the curriculum for the grammar school and High School. Lectures, text-books, and assigned readings. Junior and Senior elective. *Fall term, three hours.* Professor NOBLE.

5-6. Schoolroom Observation and Methods: a study of classroom instruction and discipline on the bases of text-book theory and actual observation in a large and in a small school system. Such topics as the most efficient size of classes and sections, disciplinary devices, value of drill work, applied psychology, methods used in the various subjects of study, assigning of new lessons, etc., will be considered. Text-books, lectures, school visitations. Required of Seniors in the School of Education; not open to Academic students. *Both terms, three hours plus one hour of observation.* Professor ——

HISTORY OF EDUCATION

22. The General History of Education. A brief general history of education; the development of educational theories in the past; the effect of the pedagogical doctrines of the great educators of the past upon modern educational systems. Lectures, text-books, parallel readings, theses. Junior and Senior elective. *Spring term, three hours.* Professor Noble.

23-24. Current Education. A study of present educational tendencies and practice as seen in typical country and city school systems and in the development and supervision of the American public school of today. For teachers who wish to prepare for service as principals and superintendents. Lectures, text-books, research, and theses. Junior and Senior elective. *Both terms, two hours.* Professor Noble.

25-26. Modern Educational Theorists: a comparative study of modern theories in education as revealed by writers on the topic from the Renaissance to the present time. Present problems in education will be studied in the light of their past. Lectures, discussions, reports. Junior and Senior elective. *Both terms, two hours.* Professor ———

27-28. American Education. A brief study of the more prominent State school systems; a comparative study of the purpose and progress of education in the different sections of the Union. Lectures, text-books, assigned readings, and theses. Graduate course open to Seniors. *Both terms, two hours.* Professor Noble.

EDUCATIONAL PSYCHOLOGY

41-42. Introduction to Educational Psychology. This course will deal with the psychological principles which underly the learning process. Topics treated will be the nature and educational importance of instinct, habit formation, attention and interest, the acquisition of knowledge, attitudes, ideals, action, the emotional life. Lectures, readings, class exercises. Sophomore, Junior, and Senior elective; required of Juniors in the School of Education. *Both terms, three hours.* Professor Chase.

44. Laboratory Course in Educational Psychology. The laboratory work will deal with such topics as habit formation, memory, economical methods of learning, the transfer of training, and some of the simpler mental tests, and will be supplemented by lectures. Junior and Senior elective; open only to students who have completed the fall term of Education 41-42, or of Philosophy 1-2. *Spring term, three hours.* Professor Chase.

Laboratory fee, $2.00.

45-46. Seminar in Educational Psychology. An intensive study of special problems in the field of educational psychology. The topics considered will vary somewhat from year to year, in accordance with the interests of the class. A minor piece of original work will be required of each student. Prerequisite, Education 41-42, or Philosophy 1-2. Education 44 is also an advised prerequisite. The course is open only to graduate students. Students from other institutions who register in the Graduate School must secure the permission of the instructor before electing the course. *Both terms, two hours.* Professor Chase.

The attention of students in Educational Psychology is called to courses 1-2 (Introduction to Psychology) and 3-4 (Genetic Psychology) in the Department of Philosophy.

EDUCATIONAL ADMINISTRATION AND SUPERVISION

51-52. High School Organization and Administration: a study of the American high school, its evolution, organization, administration, function, and problems. Special emphasis will be laid on the state high school in North Carolina. The course looks toward preparation to meet the State requirements for high school teachers. Text-books, lectures, assigned readings. Junior and Senior elective; required of Juniors in the School of Education. *Both terms, three hours.* Professor ————

53-54. Country Life Problems. The work will include a careful and detailed study of the problems peculiar to country life and of the part the country school has in such problems. The material will be secured from a search into actual conditions as found in North Carolina county schools and supplemented by facts about conditions elsewhere in the United States and abroad. Lectures,

readings, reports, laboratory studies. Junior and Senior elective. *Both terms, two hours.* Professor Williams.

55-56. Rural School Organization and Administration. This course will attempt to work over the daily problems confronting the officers and teachers in the one-teacher, two-teacher, three-teacher country school and to open lines of activity for helping to solve the problems. The organization, administration and supervision of graded schools having a high school department will be considered. The work will be of particular value as preparation for the position of principal or superintendent of a town or country school. Lectures, readings, laboratory studies. Senior elective. *Both terms, two hours.* Professor Williams.

61-62. Administration: a study of state and county educational reorganization. The larger problems of necessary state, county and city officers of education, their powers and duties, the sources of income and distribution of expenditures for schools, the units of efficient organization in large and small school systems, etc., will be carefully studied in detail. Text-book, discussions, assigned readings. Graduate course, open to Seniors. *Both terms, two hours.* Professor .....

63-64. Administrative Problems: a seminar course devoted to a detailed study of administrative and supervisory problems arising in a school or system of schools. Discussions, reports, theses. Graduate course, open to Seniors in the School of Education; prerequisite, Education 51-52. Not open to Academic students. *Both terms, two hours.* Professor Williams.

GRADUATE COURSES

Courses 27-28, 45-46, 61-62, 63-64, are ranked as graduate courses. Courses in the School of Education which are open to Juniors and Seniors may be elected by graduate students when such election is in conformity with the regulations of the Graduate School. Courses in the School of Education which are of Junior and Senior grade but not open to Academic students may be elected by graduate students who intend to teach and who major in other departments, subject to the regulations of the Graduate School, and provided the consent of the instructor giv-

ing the chosen course is secured. Students electing graduate courses in the School of Education should consult Professor Chase before registering for such courses.

For the complete list of courses in Education offered to graduates, and the requirements for the degree of Master of Arts, see the announcement of the Graduate School.

LIBRARY ADMINISTRATION

1-2. School Library Administration: a study of the principles and practical management of school libraries, preparation of debates and debate references, reference books, reading courses and children's readings, book selection and ordering, classification and cataloguing, technical methods, practice in the University library. Junior and Senior elective. Open only to library assistants and those preparing to become library assistants, or to those who take Education 3, or Education 51-52, or Education 53-54. *Both terms, two hours.* Professor Wilson.

COURSES FOR TEACHERS

The attention of students in the School of Education is called to the courses for teachers offered by the departments of Latin, German, and Zoology, and to the work offered by the Professor of Applied Rural Economics and Sociology.

THE GRADUATE SCHOOL

COMMITTEE

Edward Kidder Graham, A. M., D. C. L., LL. D., President.
Charles Lee Raper, Ph. D., Dean.
Harry Woodburn Chase, Ph. D.
Edwin Greenlaw, Ph. D.

FACULTY

Francis Preston Venable, Ph. D., D. Sc., LL. D., *Francis Preston Venable Professor of Chemistry.*
Walter Dallam Toy, M. A., *Professor of the Germanic Languages and Literatures.*
William Cain, A. M., *Professor of Mathematics.*
Henry Horace Williams, A. M., B. D., *Professor of Philosophy.*
Henry VanPeters Wilson, Ph. D., *Professor of Zoology.*
Collier Cobb, A. M., *Professor of Geology and Mineralogy.*
Marcus Cicero Stephens Noble, *Professor of Pedagogy.*
George Howe, Ph. D., *Professor of the Latin Language and Literature.*
Charles Holmes Herty, Ph. D., *Professor of General and Industrial Chemistry.*
Charles Lee Raper, Ph. D., *Professor of Economics.*
William Chambers Coker, Ph. D., *Professor of Botany.*
Archibald Henderson, Ph. D., *Professor of Pure Mathematics.*
Joseph Gregoire de Roulhac Hamilton, Ph. D., *Alumni Professor of History.*
*Andrew Henry Patterson, A. M., *Professor of Physics.*
Henry McGilbert Wagstaff, Ph. D., *Professor of History.*
William Morton Dey, Ph. D., *Professor of the Romance Languages and Literatures.*
Marvin Hendrix Stacy, A. M., *Professor of Civil Engineering.*
Harry Woodburn Chase, Ph. D., *Professor of Psychology.*
Alvin Sawyer Wheeler, Ph. D., *Professor of Organic Chemistry.*

* Absent on leave, 1915-1916.

Parker Hayward Daggett, S. B., *Professor of Electrical Engineering.*

James Munsie Bell, Ph. D., *Professor of Physical Chemistry.*

Edwin Greenlaw, Ph. D., *Professor of English.*

Lester Alonzo Williams, A. M., Pd. D., *Professor of Rural Education.*

Eugene Cunningham Branson, A. M., *Professor of Rural Economics and Sociology.*

Elmer Adna Harrington, Ph. D., *Acting Professor of Physics.*

William Stanly Bernard, A. M., *Associate Professor of Greek.*

Oliver Towles, Ph. D., *Associate Professor of the Romance Languages.*

Thomas Felix Hickerson, A. M., S. B., *Associate Professor of Civil Engineering.*

Kent James Brown, Ph. D., *Associate Professor of German.*

Norman Foerster, A. M., *Associate Professor of English.*

James Holly Hanford, Ph. D., *Associate Professor of English.*

Orestes Pearl Rein, Ph. D., *Assistant Professor of German.*

John Eliphalet Smith, B. S., *Instructor in Geology.*

CANDIDATES FOR GRADUATE WORK

Graduates of the University of North Carolina and of other universities and colleges of good standing are, upon application to the President or Dean, ordinarily admitted to advanced courses of instruction free of charge for tuition. There is, however, a registration fee of fifteen dollars for each term. An applicant for admission, unless a graduate of the University of North Carolina, is required to present his diploma and a certificate of scholarship and character. If in any department the preliminary training of candidates has not been sufficient to qualify them for strictly graduate work, they will be required to take such undergraduate courses as may be prescribed by the head of the department; but these courses will not be counted for hours in work leading to a graduate degree.

Students who are not graduates may, if they prove themselves qualified, take graduate courses; but no graduate degree will be given a student who does not already hold a Bachelor's degree from some institution of approved standing.

The candidate for a graduate degree will not be allowed a second

trial on examination; nor will he receive credit upon any course unless he makes a grade of at least 3.

All courses must be approved by the President or Dean.

DEGREES

The University offers to graduate students advanced work leading to the degrees of Master of Arts (A. M.), Master of Science (S. M.), and Doctor of Philosophy (Ph. D.).

MASTER OF ARTS

Candidates for the degree of Master of Arts must complete satisfactorily one year of study consisting of at least fifteen hours a week of recitations or lectures, eight hours of which must be taken from courses in the Graduate School, the remaining seven from courses in the Graduate School or from undergraduate courses open to Juniors and Seniors. The candidate must select one major subject, to which he shall devote at least half of his time, and one allied minor subject. He may, with the approval of the Dean and of the professor in charge of his major subject, select a second minor subject. He shall be required to have a reading knowledge of French and German in case the professor in charge of his major subject thinks it necessary for efficient work. The course as a whole must have unity and must be pursued with definite aim.

A thesis based on the major subject of study and showing capacity for original research must be submitted on or before May 1 of the given year, and must be filed in typewritten form on or before May 15.

MASTER OF SCIENCE

The degree of Master of Science is conferred under conditions similar to those stated above for the degree of Master of Arts.

DOCTOR OF PHILOSOPHY

A candidate for the degree of Doctor of Philosophy is required to pursue, in residence at the University, a prescribed course of advanced study and research in one major subject and two allied

minor subjects. In general a term of three years is required, but the degree may be secured in two years in the case of exceptional preliminary training in the major subject.

These requirements of residence and study are, however, entirely secondary. The degree is conferred not simply for faithful study in a determinate field of work for a prescribed period, but because of a high attainment in a special branch of learning, which the candidate must manifest not only in examination but by a thesis which gives evidence of independent research. The thesis must be accepted before the candidate may be admitted to examination. The examinations are both written and oral. They demand a minute knowledge of a special field of work as well as a general acquaintance with the department of learning in which the candidate offers himself for the degree. The candidate must also give proof of his ability to read French and German.

COURSES OF INSTRUCTION

DEPARTMENT OF BOTANY

[For description of Biological Laboratories, see page 261.]

5-6. Physiology: a general course in plant physiology; lectures with laboratory and field experiments. Open to Juniors and Seniors. *Both terms, three hours.* Professor Coker and Mr. Totten.

Laboratory fee, $3.00 a term.

7-8. Special Morphology of the Algæ and Fungi, with attention to the culture of lower fungi, and the identification of mushrooms; lectures with laboratory and field work. Open to Juniors and Seniors. *Both terms, three hours.* Professor Coker and Mr. Totten.

Laboratory fee, $3.00 a term.

9-10. Plant Morphology: advanced work in the embryology and anatomy of plants. The student is required to collect and prepare material for the microscopic study of special problems. Theses. *Both terms, five hours or more.* Professor Coker.

Laboratory fee, $3.00 a term.

DEPARTMENT OF CHEMISTRY

[For description of Chemical Laboratories, see page 259.]

25-26. Advanced Inorganic Chemistry. Seminar course: readings and discussions of recent advances in inorganic chemistry. *Both terms, two hours.* Professor Herty.

27-28. Research in Inorganic, Analytical, and Industrial Chemistry. This course (with 77-78 and 97-98) is intended only for applicants for the degree of Doctor of Philosophy or properly equipped students who desire special training in advanced chemical research. It requires, in addition to the laboratory work, daily conference with the professor and continual reference to the literature touching the matter under investiga-

tion. The work is usually assigned by the professor, but by special permission the student may elect to work upon problems to which he wishes to give particular attention. *Both terms, six hours.* Professors Herty and Venable.

Laboratory fee, $15.00 a term.

75-76. Advanced Organic Chemistry: Seminar Course; readings and discussions; a study of class reactions with reference to their application to organic research is taken up, and special attention is given to the most important modern investigations. *Both terms, two hours.* Professor Wheeler.

77-78. Research in Organic Chemistry. The statements made in regard to course 27-28 apply also to this course. *Both terms, six hours.* Professor Wheeler.

Laboratory fee, $15.00 a term.

95-96. Advanced Physical Chemistry. Seminar Course; readings and discussions of recent advances in physical chemistry. *Both terms, two hours.* Professor Bell.

97-98. Research in Physical Chemistry. The statements made in regard to course 27-28 apply also to this course. *Both terms, six hours.* Professor Bell.

Laboratory fee, $15.00 a term.

The *Journal Club* meets fortnightly. The current journals, American, English, German, and French, purely scientific and technical, are reviewed by the students and instructors. Attendance upon the meetings of the Club is expected of all students taking the above courses.

DEPARTMENT OF ECONOMICS

15-16. Economic Institutions and Thought in England and the United States. A general study, largely from the historical point of view, of the economic institutions and the systems of economic thought in England and the United States; a special study of socialism. Lectures, readings, and reports. Cheyney's *Industrial and Social History of England,* Brooks' *The Social*

Unrest, Spargo's *Socialism,* and the *Communist Manifesto* (Marx and Engels). Open to Seniors. *Both terms, two hours.* Professor RAPER.

13-14. Public Finance. A general study of the principles which are involved in the revenues and expenditures of the state, and in the relation of the state to the industries of its citizens; a special study of taxation, local, state, national. Lectures, readings, and reports. Adams' *The Science of Finance.* Open to Seniors. *Both terms, two hours.* Professor RAPER.

Given in alternate years; to be given in 1916-1917.

DEPARTMENT OF RURAL ECONOMICS AND SOCIOLOGY

3. Laboratory Courses in Rural Economics and Sociology; home-county and home-state studies, researches, and surveys. Professor BRANSON.

DEPARTMENT OF EDUCATION

27-28. American Education. A brief study of the more prominent State school systems; a comparative study of the purpose and progress of education in the different sections of the Union. Lectures, text-books, assigned readings, and theses. Open to Seniors. *Both terms, two hours.* Professor NOBLE.

45-46. Seminar in Educational Psychology. An intensive study of special problems in the field of educational psychology. The topics considered will vary somewhat from year to year, in accordance with the interests of the class. A minor piece of original work will be required of each student. Prerequisite, Education 41-42, or Philosophy 1-2. Education 44 is also an advised prerequisite. The course is open only to graduate students. Students from other institutions who register in the Graduate School must secure the permission of the instructor before electing the course. *Both terms, two hours.* Professor CHASE.

61-62. Administration: a study of state and county educational reorganization. The larger problems of necessary state, county and city officers of education, their powers and duties, the sources of income and distribution of expenditures for schools, the units of efficient organization in large and small school systems, etc.,

will be carefully studied in detail. Text-book, discussions, assigned readings. Open to Seniors. *Both terms, two hours.* Professor ————

63-64. Administrative Problems: a seminar course devoted to a detailed study of administrative and supervisory problems arising in a school or system of schools. Discussions, reports, theses. Graduate course, open to Seniors in the School of Education; prerequisite, Education 51-52. Not open to Academic students. *Both terms, two hours.* Professor Williams.

DEPARTMENT OF ELECTRICAL ENGINEERING

[For description of Electrical Engineering Laboratories, see page 257.]

13. Theory of Electric Circuits. This is an advanced course consisting of an intensive study of the laws of the electric, magnetic and dielectric circuits based on the works of Karapetoff and Steinmetz. Emphasis is placed on the circuital relation existing in these three circuits, and the treatment of each is, so far as possible, identical. A thorough study is made of alternating-current circuits; the aim being to correlate the work with the laws of direct-current circuits in order that a proper perspective may be obtained, and a standard method of treatment adopted for the study of the various types of dynamo-electric machinery. The laboratory work comprises a study of the effects of inductance and capacitance in circuits, hysteresis and eddy-currents in iron, e. m. f. wave-shapes, the electrical relations in polyphase circuits, and the effects of iron in alternating current circuits. Texts: Karapetoff's *The Electric Circuit* and *The Magnetic Circuit,* and Steinmetz's *Alternating Current Phenomena.* Open to Seniors. Prerequisites Mathematics 11-12 and E. E. 11-12. *Fall term, eight hours.* Professor Daggett and Mr. Staples.

Laboratory fee, $5.00.

14. Direct and Alternating-Current Machinery. This course consists of an analytical study of the performance of electrical machines. The work is correlated closely with E. E. 18. In general are considered such questions as predetermination of e. m. f. wave-shapes of alternators; leakage-reactance of wind-

ings; exciting ampere-turns in direct-current machines, synchronous-generators, motors, converters, and induction machines; armature reaction and regulation of direct-current machines and alternators. For the laboratory work a predetermination of the performance of the machine is made from the dimensions and design constants and the results are checked by actual tests of the performance in the laboratory. Open to Seniors. Prerequisite, E. E. 13. *Spring term, four hours.* Professor DAGGETT and Mr. STAPLES.

Laboratory fee, $5.00.

18. Dynamo Design. A course in the principles of the design of standard electric machines. Emphasis is placed on logical analysis of the various problems, both from a theoretical point of view and in the light of commercial limitations and economic conditions involved in manufacturing. The work comprises a study of the design, construction and proportions of direct-current dynamos, alternators, induction motors, synchronous-converters and transformers, and parallels closely the work in course 14. Text: Gray's *Electric Machine Design,* supplemented by wide reading in the works of Hobart, Adams, Arnold and others. Open to Seniors. Must be accompanied by E. E. 14. *Spring term, four hours.* Professor DAGGETT.

21. Electric Measuring Instruments: a study of the theory, construction and methods of use of the various instruments used in electric measurements and testing: ammeters, voltmeters, wattmeters, watthour meters, galvanometers, potentiometers, phase and frequency meters, synchroscopes. In the laboratory a study is made of the methods of calibration, especial attention being devoted to the testing of watthour meters. Considerable attention is also given to the errors involved in measurements. Text: Jansky's *Electric Meters.* Prerequisites, E. E. 11-12. *Fall term, three hours.* Professor DAGGETT and Mr. STAPLES.

Laboratory fee, $5.00.

41-42. General Electrical Engineering. An advanced course in electrical theory, including the study of distributed inductance and capacity, transient phenomena, e. m. f. wave-shapes in alternators and synchronous-converters and the application of hyperbolic functions to the solution of problems in power trans-

mission and telephone circuits. The work will be covered by lectures, reports on assigned reading and problems. Texts: Steinmetz's *Electric Discharges, Waves and Impulses,* and Kennelly's *The Application of Hyperbolic Functions to the Solution of Electrical Engineering Problems.* Prerequisites, E. E. 13, 14, 31 and 32, and Mathematics 10 or 15-16. *Both terms, three hours.* Professor Daggett.

51-52. Electrical Engineering Research and Design. The solution of one or more definite problems in some particular field of Electrical Engineering. The work of this course will be outlined, as far as possible, to suit the needs of the individual student, and will consist of original investigations, designs, or the economic study of some existing electric power plant. This course presupposes the completion of the work for the degree of S. B. in Electrical Engineering. *Both terms, three to six hours.* Professor Daggett.

DEPARTMENT OF ENGLISH

The following courses are divided into three groups. Group I, which includes courses 37-38, 41-42, 45-46, is made up of courses intended primarily for undergraduates, but these courses may be counted for graduate credit providing certain additional work, such as a thesis, be submitted and approved. In case a student desires to offer a course from this group for graduate credit, it will be necessary for him to arrange with the instructor, before October first, a plan of such additional work. Not more than two of the courses in this group may be offered for graduate credit in any one year. Group II, which includes courses 71-76, is made up of courses open to graduates and undergraduates on the same terms. The attention of students electing courses in this group is called to the following related courses in other departments: Latin 53-54, German 61-62, French 23-24. Group III, consisting of courses 81-84, is designed primarily for graduates.

A reading knowledge of French and German, to be tested by an examination, is prerequisite to admission to candidacy for the degree of Doctor of Philosophy in the Department of English, and German 61-62 and French 23-24 are counted among the requirements for the degree.

37-38. The Elizabethan Drama. A brief study of the beginnings of the English drama, followed by an intensive study of the period from Lyly to the closing of the theaters. While particular attention is paid to Shakespere, it is also the purpose of the course to study his work in connection with that of his contemporaries. The development of the dramatic technique, the Elizabethan conceptions of tragedy and comedy as distinguished from those of classical or of recent times, and the relation of the drama to certain phases of Renaissance thought, are studied through the reading of a considerable number of plays. Open to Juniors and Seniors. *Both terms, three hours.* Professor GREENLAW.

41-42. English Literature in the Age of Elizabeth. A study of the types of literature, except the drama: the sonnet and other lyrical poetry; the pastoral; the epic; prose fiction; the essay. Attention is given to the relation between English and continental literature in the Renaissance. The first term is devoted to the study of poetry, with Spenser as the basis; the second term is concerned chiefly with literary criticism and with the study of Bacon. Open to Juniors and Seniors. *Both terms, three hours.* Professor GREENLAW.

45-46. The Classical Tradition in English Literature. This course is concerned with the influence of classical models and ideals on English literature, primarily in the sixteenth, seventeenth, and eighteenth centuries. The work of the first term will center in Milton as the culmination of English classicism; the second term will be devoted chiefly to the study of Dryden, Pope, Johnson, and other representatives of the pseudo-classicism of the Restoration and the Augustan Age. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor HANFORD.

71-72. Old and Middle English. In the first term a careful study is made of Old English grammar and syntax; a large amount of easy prose is read. In the second term the grammatical work and the reading are carried on into the Middle English period, with special attention to Chaucer. The aim of the course is to acquaint the student with the main facts of the beginning and development of the English language, and to introduce him to the study of early English literature. The language of the

older periods is considered in its relation to present-day English; many points of confusion in modern English, unexplained by the rules of logical grammar, are made clear. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor Hanford.

73-74. Old and Middle English: Advanced Course. The work of the first term continues the study of Old English grammar, particularly in its relation to that of the other Indo-European languages, but the major part of the term is devoted to the reading of Beowulf. In the second term the study of Chaucer begun in course 71-72 will be continued. Open to Seniors. *Both terms, three hours.* Associate Professor Hanford.

75-76. History of the English Language. This course supplements courses 71-74. It will trace the growth of the English language from its beginning in England until today. Open to Juniors and Seniors. *Both terms, two hours.*

This course is omitted in 1915-1916.

81-82. Seminar in the Teaching of English. This course will deal primarily with the teaching of both literature and composition in the high school, and secondarily with the teaching of Freshman English in the college. Ordinarily it is a requirement for the Master's degree in English. *Both terms, one or two hours.* Associate Professor Foerster.

83-84. Seminar. This course is designed as a general introduction to the higher study of English. A special period of literature, or a special literary form, or a single writer, is chosen for the topic of the course. The method of study includes a considerable amount of parallel reading in connection with the general topic; a study of some elementary problems in research; the presentation of brief oral or written reports on some phase of the subject, and, in the second term, the writing of a thesis. *Both terms, three hours.* Professor Greenlaw.

DEPARTMENT OF GEOLOGY

[For description of Geological Laboratories, see page 262.]

11-12. Economic Geology: ore deposits, coal, oil and gas, clays, building stones, cement materials, fertilizers, underground

waters, etc.; occurrence, methods of exploitation, production, and conservation of mineral resources; lectures, laboratory and field work. Open to Juniors and Seniors; prerequisite, Geology 1-2 and Chemistry 1-2. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, $1.00 a term.

13-14. Petrography: rocks and rock minerals, optical mineralogy, crystallography, etc.; lectures, laboratory work, and theses. Open to Juniors and Seniors. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, $3.00 a term.

23-24. Origin and Nature of Soils: field work, laboratory work, and theses. Students in this course are expected to keep Saturday open for field work. Junior and Senior elective; prerequisites, Geology 1-4, Chemistry 1-2 and 31-32, Botany 1-2. *Both terms, three hours.* Professor COBB.

Laboratory fee, $3.00 a term.

51-52. Advanced Field Work and Special Research in Geology and Geography: problems assigned individually and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Open to Seniors. *Both terms, three hours.* Professor COBB.

55-56. Research Course in Historical Geology. *Both terms, three hours.* Professor COBB.

DEPARTMENT OF GERMANIC LANGUAGES

41-42. Goethe: Goetz von Berlichingen, Werther's Leiden, Tasso, Dichtung und Wahrheit, Hermann und Dorothea. Lectures on Goethe's life and work. Selected chapters of Scherer's *History of German Literature,* Francke's *History of German Literature,* and Bielschowsky's *Goethe, Sein Leben und Seine Werke* will be read. Open to Juniors and Seniors; prerequisite, German 21-22 or 23-24 or 25-26. *Both terms, three hours.* Associate Professor BROWN.

This course may be elected only after consultation with the instructor.

43-44. Goethe's Faust, Parts I and II. Open to Juniors and Seniors. Prerequisite, German 21-22 or 23-24 or 25-26. *Both terms, three hours.* Professor Toy.

This course may be elected only after consultation with the instructor.

45-46. Kleist and Hebbel. Translation and interpretation of selected dramas; lectures and collateral reading. Open to Juniors and Seniors. Prerequisite, German 21-22 or 23-24 or 25-26. *Both terms, two hours.* Associate Professor Brown.

61-62. Gothic: Braune's *Gotische Grammatik;* selected parts of Paul's *Grundriss der Germanischen Philologie.* This course is intended to lay the foundation for the philological study of the German dialects. Open to Juniors and Seniors. Prerequisite, German 21-22 or 23-24 or 25-26. *Both terms, two hours.* Professor Toy.

63-64. Old High German: Braune's *Althochdeutsche Grammatik;* Braune's *Althochdeutsches Lesebuch.* Open to Juniors and Seniors. Prerequisite, German 21-22 or 23-24 or 25-26. *Both terms, two hours.* Professor Toy.

65-66. Introduction to Old Saxon. Holthausen's *Altsächsisches Elementarbuch.* Heliand (Behaghel). Prerequisite, German 21-22 or 23-24 or 25-26 and English 71-72. *Both terms, two hours.* Assistant Professor Rein.

67-68. Middle High German: Paul's *Mittelhochdeutsche Grammatik;* Bachmann's *Mittelhochdeutsches Lesebuch;* translation into New High German. Open to Juniors and Seniors. Prerequisite, German 21-22 or 23-24 or 25-26. *Both terms, three hours.* Assistant Professor Rein.

DEPARTMENT OF GREEK

21-22. Greek Drama: Euripides, Iphigenia Among the Taurians; Sophocles, Œdipus Tyrannus; Æschylus, Agamemnon; Aristophanes, Wasps; Aristotle, Poetics. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor Bernard.

35-36. Greek History: the selections from Greek historians in Parts I and II of Baumeister's *Quellenbuch zur Alten Geschichte. Both terms, two hours.* Associate Professor BERNARD.

39-40. Critical Study of Special Authors: with lectures on Classical Greek syntax, meters, dialects, oral and written translation into Greek, the history of Athens from the battle of the Arginusæ to the Restoration of the Democracy. *Both terms, three hours.* Associate Professor BERNARD.

43-44. The Greek New Testament: The Acts of the Apostles, study of grammar and diction, comparison with English versions. The Gospels with selections from the Epistles, the principles of textual criticism, sources and history of the Greek text and the versions. Junior and Senior elective. Prerequisite, Greek 3-4. *Both terms, two hours.* Associate Professor BERNARD.

52. Greek Epigraphy and Palæography: a brief introduction to the study of Greek inscriptions and manuscripts; lectures and reports. *Spring term, two hours.* Professor HOWE.

The attention of students electing this course is called to course 51 in the Latin Department.

DEPARTMENT OF HISTORY

19-20. Civil War and Reconstruction: a detailed study of the constitutional, political, and economic phases of the period of the Civil War and Reconstruction; lectures, readings, and reports. Open to Seniors. *Both terms, two hours.* Professor HAMILTON.

27-28. The American Constitution: research in the history of the Constitution of the United States. *Both terms, two hours.* Professor WAGSTAFF.

29-30. American Politics: research in the history of political parties of the United States. *Both terms, two hours.* Professor HAMILTON.

DEPARTMENT OF LATIN

35-36. Roman Elegiac Poets: rapid reading of selected elegies of Catullus, Tibullus, Propertius, and Ovid; a study of the lives

of the elegists; the history of Greek and Roman elegy. Open to Juniors and Seniors. *Both terms, three hours.* Professor Howe.

This alternates with course 37-38; to be omitted in 1916-1917.

37-38. The Latin Epic: Vergil will be the central theme of this course, but the development of the Latin Epic will be treated historically, and illustrative readings in other poets will be assigned. Open to Juniors and Seniors. *Both terms, three hours.* Professor Howe.

This course alternates with course 35-36; to be given in 1916-1917.

45-46. The Study of a Particular Author or Period in Roman Literature: practice in rapid reading, with translation of the more difficult passages only. *Both terms, two hours.* Professor Howe.

51. Latin Epigraphy and Palæography: a brief introduction to the study of Latin inscriptions and manuscripts; lectures and reports. *Fall term, two hours.* Professor Howe.

The attention of students electing this course is called to course 52 in the Department of Greek.

DEPARTMENT OF MATHEMATICS

Pure Mathematics

11-12. Calculus; Analytic Mechanics. Open to Juniors and Seniors. Prerequisite, Mathematics 3-4. *Both terms, three hours.* Professor Cain.

13-14. Theory of Equations (Burnside and Panton). Open to Juniors and Seniors. *Both terms, three hours.* Professor Henderson.

15-16. Differential Equations (Murray). Open to Seniors. *Both terms, three hours.* Professor Henderson.

17-18. Advanced Differential and Integral Calculus. Prerequisite, Mathematics 11-12. *Both terms, two hours.* Professor Cain.

19-20. Vector Analysis. Prerequisite, Mathematics 11-12. *Both terms, two hours.* Professor Cain.

21-22. Modern Synthetic Geometry. Text: Russell. Prerequisite, Mathematics 11-12. *Both terms, three hours.* Professor HENDERSON.

23-24. Modern Analytic Geometry. Text: Smith, C. Prerequisite, Mathematics 11-12. *Both terms, three hours.* Professor HENDERSON.

25-26. Analytic Geometry of Space: Text: Smith, C. Prerequisite, Mathematics 3-4. *Both terms, three hours.* Professor HENDERSON.

Civil Engineering

9-10. Road and Railroad Surveying and Engineering. Open to Seniors. *Both terms, three hours.* Professor STACY.

15-16. Mechanics of Engineering. Prerequisite, Mathematics 3-4. Open to Juniors and Seniors. *Both terms, three hours.* Assistant Professor JAMES.

19-20. Hydraulics and Sanitary Engineering. Open to Seniors. *Both terms, three hours.* Professor STACY.

21-22. Retaining Walls and Dams; Arches. Senior elective. Prerequisite, Mathematics 11-12. *Both terms, two hours.* Professor CAIN.

23-24. Theory of Structures. Outer and inner forces, shears, moments, influence lines, beams, plate girders, trusses, three-hinged arches, columns, graphical statics, deflection, continuous girders, masonry dams, reinforced concrete structures. Open to Seniors. Prerequisite, C. E. 15-16. *Both terms, four hours.* Associate Professor HICKERSON.

25-26. Bridge Design. Computations and drawings for the complete design of a wooden Howe truss, steel plate girder, steel roof truss, steel highway bridge truss, steel railroad pin and riveted Pratt truss. To be taken in connection with C. E. 23-24. *Both terms, three hours.* Associate Professor HICKERSON.

DEPARTMENT OF PHILOSOPHY

Psychology

3-4. Genetic Psychology. This course attempts to trace in broad outline the development of behavior in the race and the individual. Typical experimental methods of attack on problems of animal behavior and their results will be briefly treated, with particular reference to their bearing on behavior in man. Mental development in the individual will be discussed, and various abnormal phenomena will be considered in their bearing on normal human behavior. Lectures, assigned readings, thesis. Open to Juniors and Seniors. Prerequisite, Philosophy 1-2 or Education 41-42. *Both terms, two hours.* Professor Chase.

Philosophy

17-18. Epistemology: a study of the Critical Philosophy; lectures, theses. First term: Prolegomena and Practical Reason, and the work that prepared the way for Kant. Second term: *Kritik der reinen Vernunft. Both terms, three hours.* Professor Williams.

19-20. A Companion Course to Philosophy 15-16. The aim of the course is to sketch the forces masterful in modern life. Open to Juniors and Seniors. *Both terms, three hours.* Professor Williams.

DEPARTMENT OF PHYSICS

5-6. Heat and Thermodynamics. Prerequisite, Physics 1-2 and Mathematics 3-4. Open to Juniors and Seniors. *Both terms, two hours.* Professor Harrington.

7-8. Modern Electrical Theory: the electron theory, electrolysis, conduction of electricity through gases, electric nature of matter, radio-activity. Prerequisite, Physics 1-2. Open to Juniors and Seniors. *Both terms, two hours.* Professor Harrington.

DEPARTMENT OF ROMANCE LANGUAGES

11-12. French Literature in the Seventeenth Century. Classicism: Molière, Corneille, Racine, etc. Lectures, reading, reports.

Prerequisite, French 3-4 or 5-6. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor TOWLES.

This course alternates with course 13-14; to be given in 1916-1917.

13-14. French Literature in the Eighteenth Century. Rousseau, Voltaire, Montesquieu, Lesage, Marivaux, Beaumarchais, etc. Lectures, reading, reports. Prerequisite, French 3-4 or 5-6. Open to Juniors and Seniors. *Both terms, three hours.* Professor DEY.

This course alternates with course 11-12; to be omitted in 1916-1917.

15-16. French Literature in the Nineteenth Century. Romanticism: Lamartine, Hugo, Vigny, Musset, etc., and later literary movements. Lectures, reading, reports. Prerequisite, French 3-4 or 5-6. Open to Juniors and Seniors. *Both terms, three hours.* Professor DEY.

17-18. The French Drama. A study of the development of the drama in France. Lectures, reading, and much collateral reading, with reports. Prerequisite, French 3-4 or 5-6. Open to Juniors and Seniors. *Both terms, two hours.* Professor DEY.

23-24. Old French. Reading of the oldest texts: La Chanson de Roland; Aucassin et Nicolette; Chrétien de Troyes. Lectures on French Phonology and Morphology. Prerequisite, French 3-4, a knowledge of Latin equivalent to courses 1-2 and 3-4 of the Latin Department, and a reading knowledge of German. *Both terms, two hours.* Associate Professor TOWLES.

25-26. Provençal: a study of the ancient language and literature of Provence. Prerequisite, French 23-24. *Both terms, two hours.* Professor DEY.

DEPARTMENT OF ZOOLOGY

[For description of Biological Laboratories, see page 261.]

3-4. Comparative Anatomy and Embryology of the Vertebrates; dissection of types, especially amphioxus, petromyzon, fish, fowl, mammal; early stages in embryology of ascaris, starfish; segmentation and formation of germ layers in teleost and frog; germ layers

and development of characteristic vertebrate organs in chick; selected stages in development of mammal (rabbit, pig); fundamentals of microscopic technique; laboratory work with occasional lectures. Open to Juniors and Seniors. *Both terms, three hours.* Professor Wilson and Mr. George.

Laboratory fee, $5.00 a term.

5-6. Morphology of the Invertebrates: comparative anatomy and classification of the chief orders of invertebrate animals, with some consideration of their life-histories; dissection and microscopic study of types; laboratory work, with occasional lectures. Junior and Senior elective. *Both terms, three hours.* Professor Wilson.

Laboratory fee, $5.00 a term.

7-8. Comparative and Experimental Study of Development: detailed study of problems in embryology and regeneration; laboratory work, with use of treatises and original memoirs; theses. *Both terms, five hours or more.* Professor Wilson.

Laboratory fee, $5.00 a term.

PART THREE

PECUNIARY AID AND EXPENSES

MEDALS AND PRIZES

REGULATIONS

PECUNIARY AID AND EXPENSES

FELLOWSHIPS AND SCHOLARSHIPS

The LeDoux Fellowship in Chemistry. (Established in 1911 by Dr. Albert R. LeDoux.) The holder is expected to devote himself to research in chemistry. This fellowship is endowed, and yields $300 annually.

The Library Fellowships, two in number, established in 1907, yield each $150 annually. The holders are expected to assist in the Library.

Three Teaching Fellowships, established in 1907, yield each $200 annually. The holders are expected to assist in the work of instruction in the departments to which the fellowships are assigned.

The Cameron Scholarships. (Established in 1892.) The heirs of Paul Carrington Cameron founded in his memory ten scholarships of the value of $60 each.

The Dialectic and Philanthropic Literary Societies' Scholarships. (Established in 1893.) The Dialectic and Philanthropic Literary Societies of the University founded two scholarships of the value of $60 each, recipients of which shall give assistance in the Library.

The Moore Scholarships. (Established in 1881.) Bartholomew Figures Moore, of Raleigh, bequeathed $5,000, the interest of which shall be devoted to paying the tuition of students.

The Mary Ann Smith Scholarships. (Established in 1891.) Miss Mary Ann Smith bequeathed $37,000 for the foundation of scholarships, the number of scholarships to be determined by the amount of the income.

The Mary Ruffin Smith Scholarships. (Established in 1885.) Miss Mary Ruffin Smith bequeathed to the University, in

memory of her brother, Dr. Francis Jones Smith, a valuable tract of land in Chatham County of 1,460 acres, known as Jones's Grove. The will provides that rents of the land, or the interest on the purchase money if sold, shall be used to pay the tuition of such poor students as the faculty shall appoint.

THE SPEIGHT SCHOLARSHIPS. (Established in 1892.) The late Mrs. Mary Shepard Speight bequeathed $10,000 to the University. The income shall be used to pay the tuition of needy students; but if tuition is ever made free, the income shall be used toward paying the salaries of the professors.

THE WOOD SCHOLARSHIP. (Established in 1892.) Mrs. Mary Sprunt Wood, of Wilmington, has founded, in memory of her late husband, Dr. Thomas Fanning Wood, a scholarship of the value of $60.

THE WEIL SCHOLARSHIP. (Established in 1898.) A fund established by Mr. Henry Weil, of Goldsboro, furnishes one scholarship of the value of $60.

THE ARMFIELD SCHOLARSHIPS. (Established in 1901 and 1904.) These scholarships are founded by the generosity of Mr. Eugene M. Armfield, of the Class of 1888, High Point, N. C.

THE ALUMNI SCHOLARSHIPS. These scholarships have been established by the gifts of Alumni. A scholarship will be awarded for each $1,000 given.

THE KENNETH MURCHISON SCHOLARSHIPS. (Established in 1904.) These scholarships have been founded by Mrs. Shirley Carter, of Baltimore, Md., and Mrs. James Sprunt, of Wilmington, N. C., in memory of their father. They are awarded by the founders.

THE UNIVERSITY GYMNASIUM SCHOLARSHIPS. Four scholarships, endowed by the University Gymnasium Association, are assigned by the President, and are good for tuition in the Academic Department.

None of these scholarships is open to students in the professional Schools of Law, Medicine, and Pharmacy.

All applications for scholarships must be filed in the President's office on or before August 15, and must be in the regular form prescribed by the University. Blank forms are supplied on application to the President.

FREE TUITION

By an act of the Legislature in 1887, free tuition is given to candidates for the ministry, to the sons of ministers, to young men under bodily infirmity, to teachers, and to young men preparing to teach. In order to secure this free tuition, young men preparing to teach must agree to teach in North Carolina for at least two years after leaving the University. This enables the University to aid effectively the public school teachers of the State.

LOAN FUNDS

The Deems Fund. (Established in 1879.) A fund of $600 was established by Rev. Charles Force Deems, D. D., late pastor of the Church of the Strangers, New York City, formerly a professor in the University, in memory of his son, Lieut. Theodore Disosway Deems. In 1881 the gift was greatly enlarged through the munificence of Mr. William H. Vanderbilt by a gift of $10,000 "as an addition to the Deems fund, to be loaned to indigent students of the University."

The Martin Fund. This fund has been established by the bequest of Mr. Thomas D. Martin, of Raleigh. Only the interest of the fund can be used for loans. It became available during the session of 1907-1908.

All applications for loans must be filed in the President's office on or before August 15.

Applications for loans will not be considered unless accompanied by testimony from responsible persons as to poverty and merit. The funds are limited in amount and are loaned only on the security of two approved signatures and at the legal rate of interest.

EXPENSES

Every effort is made to reduce to the lowest point the necessary expenses of an education at the University. The charges for each of the two terms are as follows:

Tuition fee	$30
Fee for matriculation*	15
Total	$45

Students taking courses in the laboratories are charged a small fee for materials. Every student must keep on deposit with the Treasurer $2 as security for damages. Willful damage to University property is charged to the perpetrator, if known; otherwise it is charged to the general deposit for damages. Any balance is returned to the student at the end of the year.

Excellent board is furnished at Swain Hall for $12.50 a month. A few students can earn their board by waiting on the tables. The entire annual expenses need not exceed $300, and they may be reduced to $200.

It is confidently believed that no institution offers wider opportunities for self-help to meritorious students of slender means. The desire is that no worthy boy, however poor, shall ever be turned away for lack of means. To such the University and town offer unusual opportunities for support. Many students are now working their way through college by every form of honorable labor. A number are here as a result of money earned or borrowed. Seventy are aided by loans, and about five hundred have received aid from the University in loans and scholarships in the past twenty years. A few students are selected by the authorities as waiters at Swain Hall. Otherwise, all opportunities available in the University and town must be secured by the personal efforts of the individual, or with the assistance of the Faculty Committee on Self-Help. They are not assigned by the President.

* This fee includes also the gymnasium fee, the library fee, the fee for the attendance of the University physician and of the University nurse, and the fee for athletics.

DORMITORY ACCOMMODATIONS

The University buildings contain rooms available for the accommodation of something over three hundred students. There is no charge for service in addition to the rent. All rooms are fitted with electric lights. Room rent ranges from 75 cents to $6 a month for each occupant, the price depending upon the location of the room. Battle, Vance, Pettigrew, Smith, Carr, Old East, the Inn dormitories contain furnished rooms.

All the buildings of the University are heated by hot water according to the most improved methods. In the dormitories the charge for light and heat will be $2 a month for each room.

MEDALS AND PRIZES

The Colonial Dames Prize. (Established in 1908.) The North Carolina Society of Colonial Dames offers annually a first prize of $50 and a second prize of $25 for the best essays on some subject connected with the Colonial period of North Carolina.

The Mangum Medal in Oratory. (Established in 1878.) A gold medal founded by the Misses Mangum, late of Orange County, in memory of their father, Willie Person Mangum, is continued by his granddaughters, Mrs. Julian A. Turner, Mrs. Stephen B. Weeks, and Miss Preston Leach, and awarded to that member of the Senior Class who shall deliver the best oration at Commencement.

The Bingham Prize in Debate. (Established in 1899.) This prize is offered by Mr. R. W. Bingham in memory of his great-grandfather, grandfather, father, and brother. It is given annually for excellence in debate. The contestants are representatives of the Literary Societies, and the contest is held on Tuesday evening of Commencement week.

The Kerr Prize in Geology and Mineralogy. (Established in 1889.) A prize of $50 is offered annually by Mr. William H. Kerr in memory of his father, Professor Washington Caruthers Kerr, to any undergraduate or graduate student for the best thesis containing original work in the geology or mineralogy of North Carolina.

The Eben Alexander Prize in Greek. (Established in 1887.) A prize of $10 is offered annually to that member of the Sophomore Class who shall present the best rendering into English of selected passages of Greek not previously read.

The Worth Prize in Philosophy. (Established in 1883.) Mr. Charles Williams Worth, in memory of his father, David Easton Worth, of the Class of 1853, will print the best thesis submitted by a student in Philosophy 4.

The Early English Text Society Prize. (Established in 1886.) A special prize is offered annually by the Early English Text Society of London for advanced work in Anglo-Saxon and Middle English.

The Bryan Prize. (Established in 1903.) A prize will be given annually by Mr. William Jennings Bryan for the best thesis in Political Science.

The Hunter Lee Harris Memorial. (Established in 1903.) Dr. Charles Wyche, of St. Louis, offers annually, in memory of Hunter Lee Harris, of the Class of 1893, a gold medal for the best original story by any student in the University.

The William Cain Prize in Mathematics. (Established in 1908.) A gold medal is offered annually by Professor William Cain to that student who shall take the highest rank in Mathematics 11-12. No student will be recommended for the prize unless he attain to grade 2.

The Preston Cup, given by the Hon. E. R. Preston in memory of his brother, Ben Smith Preston, will be awarded annually to the undergraduate student who during the months September to April has done the best work of a journalistic nature.

Certain prizes are offered also in the Professional Schools of Law, Medicine, and Pharmacy. For these, see under the several schools.

REGULATIONS

REGISTRATION

All students are expected to present themselves for registration on *Tuesday* or *Wednesday, September 12* or *13, 1916,* and *Tuesday* or *Wednesday, January 2* or *3, 1917,* between the hours of 9 A. M. and 4 P. M., at the office of the Registrar. A delayed registration fee of $5 will be charged after these days.

ARRANGEMENT OF COURSES

Every student, when he presents himself for registration, must submit a list of courses, required and elective, which he desires to pursue.

No student will be allowed to take less than 15 hours nor more than 18 hours of classroom work a week without special permission of the Faculty or of the President.

Students desiring to change their courses must make written application to the Committee on Courses for the desired change. The application will be considered by the committee and the instructors in the departments concerned, and will be granted only after a careful consideration of the facts in each case. No changes will be permitted after the first Tuesday following the registration days except such as are granted after application to, and approval by, the Faculty.

Candidates for more than one degree shall not offer the same elective in two courses nor a required study in one course as an elective in another.

ASSIGNMENT OF ROOMS

The University buildings contain 165 furnished double rooms, 8 single furnished rooms, and 82 double unfurnished rooms available for the accommodation of students. These rooms are assigned to students by the Treasurer, at the beginning of each term, in the order of application.

The President reserves the right to require any student whom for any reason he considers an undesirable tenant to vacate a room in the University buildings.

All occupants are required to sign a contract, subject to the following special rules:

In order to retain his room for the next session, a student must file with the Treasurer before May 20th a room contract properly signed. Double rooms must be signed for by both intending occupants. The rooms thus signed for will be retained until the last day of registration, provided a deposit of $5 be paid by each intending occupant before August 1. The $5 deposit will be forfeited in case the signer or signers do not themselves occupy the room and pay the full rent. Rooms not signed for or forfeited by failure to pay at the proper date will be assigned in the order of application. No dogs shall be kept in the University dormitories. Breach of this regulation leads to forfeiture of the room.

The right to occupy a room is not transferable and terminates with the expiration of the lease. Any attempt on the part of an occupant of a room to sell or transfer his right to occupancy shall be deemed a fraudulent transaction. The penalty of violating this rule shall be the forfeiture of the room by the new lessee.

The occupant of a room will be held directly responsible for any damage done to the furniture supplied in his room by the University.

CONDUCT

By order of the Board of Trustees the Faculty is directed to dismiss from the University any student who is known to engage in drinking intoxicating liquors, gambling, hazing in any form (presence at hazing is regarded as participation), or to be guilty of dissolute conduct.

Students persistently neglectful of duty, or addicted to boisterous conduct or rowdyism, may be required to leave the University.

Honorable dismissal has reference to conduct and character only. It will not be granted unless the student's standing as to conduct and character is such as to entitle him to continue in this University. Furthermore, in every statement of honorable dismissal full mention will be made of any probation, suspension, or other temporary restriction imposed for bad conduct which is still in force when the papers of dismissal are issued.

Statement of record has reference to the recorded results of a student's work in the classroom. It will in every instance contain all the important facts pertaining to the student's admission, classification, and scholarship. In particular, no partial or incomplete

classroom record (for example, with failures omitted) will be given without clear evidence that it is partial or incomplete. If the student's scholarship has been such as to prevent his continuance in this University or to render him subject to any probation, suspension, or other temporary restriction which is still in force at the date of the record, a plain statement of any and all such facts will be included, and such information will be given as will make clear the system of grades employed, the number of exercises a week devoted to each course, etc.

ATTENDANCE

Regular attendance upon lectures and recitations is required of all students.

In any term, absences are counted from the first regular meeting of each class. In no case will a student be considered present at any class until he has been registered as a member of that class.

Any student whose absences from a class during any month equal the number of scheduled meetings of the class for one week is required to stand a special examination on that month's work within the first two weeks of the succeeding month at an hour to be announced by the instructor. In the case of those whose absences in a given month reach the number indicated above, and who fail to stand the examination provided for such absences, it is left to the discretion of the instructor to retain them in his class.

Students who are absent from a class during the month of December, January, or May as much as 25 per cent of the scheduled meetings of the class must stand an examination for these months before being entitled to any grade on the term examination. This special examination is to be held in connection with the regular term examinations or at some time during the examination period.

Students who are absent during any term as much as 33⅓ per cent of the scheduled meetings of the class, except in case of prolonged sickness necessitating at least half the absences, may, at the discretion of the instructor, be debarred from the term examination.

Attendance at chapel is compulsory for all students in the University, except for members of the professional departments and for such others as are specially excused. Absence from chapel will subject the student to discipline by the Executive.

No student is allowed to absent himself from the University without written permission from the President or his representative. This permission may, at the discretion of the executive officer, be granted only upon the formal request of the parent or guardian.

EXAMINATIONS

Regular examinations on all subjects are held at the close of each term. Excuses from examinations are granted only in case of absolute necessity. Such an excuse, to be valid, must be obtained from the President by the day of examination and communicated officially to the instructor holding the examination.

Freshmen, Sophomores, and Juniors who have been excused from an examination or have received the grade 5 (see page 150) in any subject will be given one, and only one, opportunity to make good the deficiency by special examination. Examinations on the fall term of a subject may be made good either in the following September, according to the schedule given below, or at the regular examinations of the next lower class in January. Examinations on the spring term of a subject may be made good either in the following September, according to the schedule given below, or at the regular examinations of the next lower class in May. In case a student fails in the special examination, he must repeat the subject with the class of the succeeding year. If the unremoved condition be in an elective subject not offered for the succeeding year, the student must take another elective valued at the same number of hours.

Seniors who have been excused from an examination or have received the grade 5 in any subject at either the fall or spring examination will be given but one opportunity to make good the deficiency by special examination, viz., during the regular examination period of the three lower classes in May.

Papers handed in at special examinations by students who have been officially excused from the regular examination will be graded. All others will be marked either "passed" or "failed." Students who hand in papers at regular examinations are considered to have relinquished any claim to grades on special examinations.

Students who absent themselves from regular examinations without having obtained an official excuse, and those who are present at the regular examinations, but do not hand in papers, are given the grade 6 (see page 150). They are required to repeat

the subject with the next lower class, or, in case of an elective not offered in the succeeding year, to take another elective valued at the same number of hours.

A student wishing a special examination in any subject must deposit an application in the office of the Registrar at least one week before the beginning of the period of examinations.

Each student is required to subscribe his name to the following pledge on every paper: *"I hereby certify that during this examination I have neither given nor received aid."* No paper without the pledge will be read.

The order of examinations for the removal of conditions in September, 1916, will be as follows:

	Wednesday, September 6		
10 A. M.	German French	2:30 P. M.	Mathematics
	Thursday, September 7		
10 A. M.	Latin Philosophy	2:30 P. M.	Geology Education
	Friday, September 8		
10 A. M.	Physics Greek	2:30 P. M.	Chemistry History Economics
	Saturday, September 9		
10 A. M.	English	2:30 P. M.	Zoology Botany

STANDING

Semi-annual reports of the standing of all students in all the studies of the previous term are sent to parents or guardians. The reports are based upon the following system of marking:

Grade 1, 95-100 per cent.
Grade 2, 90-95 per cent.
Grade 3, 80-90 per cent.
Grade 4, 70-80 per cent.
Grade 5, 60-70 per cent.
Grade 6, below 60 per cent.

Students must attain a grade of 4 to pass in any study. Grade 5 indicates that the student is conditioned, but may remove the deficiency by special examination, as explained on page 149. Students receiving grade 6 in any study must take such study again with the next lower class, or, in case of an elective not offered in the succeeding year, must take another elective valued at the same number of hours.

A student who has failed on all the examinations of the year in any college study may not take a higher class in that department until he makes good his deficiency.

A student to be ranked as a Sophomore must have passed twelve hours of work; to be ranked as a Junior, twenty-four hours; to be ranked as a Senior, forty-two hours.

No Freshman who fails to pass at least six hours, and no Sophomore or Junior who fails to pass nine hours, shall be readmitted to the University the following year except by a special vote of the Faculty or a delegated committee of the Faculty.

In addition to the semi-annual reports, there are sent out during the session four monthly reports in which the standing of students is indicated in a general way.

CERTIFICATES

A certificate is granted to a student who has completed with credit in any department except those of Mathematics, Chemistry, Physics, and Geology all work required for a degree, together with elective work in the same department. (For detailed statement of requirements, see under the several departments of instruction.)

GRADUATION

Each Senior will be officially informed by the Registrar in August of all deficiencies standing against him.

The number of orations in the contest for the Mangum Medal is limited to four. The candidates must be members of the College or the School of Applied Science, and must announce their subjects to their respective Deans by February 1. The orations shall be delivered in private before a committee of the Faculty on May 1, who shall decide upon the relative merits of the orations. The four successful candidates are known as the Commencement Orators of the Senior Class.

ATHLETIC AND OTHER ORGANIZATIONS

No students will be allowed to take part in athletic contests, concerts, debates, etc., entailing absence from the University whose parent or guardian objects to such participation.

A student who was in attendance upon the University during a previous term or session must have passed satisfactory examinations upon at least eight hours of work before he will be allowed to represent the University in any athletic contest or in any other public capacity.

No student reported as deficient in a majority of his classes may participate in any athletic contest or otherwise publicly represent the University until the deficiency is made good.

No team or club will be allowed to be absent from the University for more than ten lecture days during the term.

The manager of each athletic team or musical club shall submit to the Athletic Committee or to the President a schedule of all engagements before positive arrangements are made.

The faculty regulations governing athletics are as follows:

1. No student whose parents or guardian object to his participation in athletic contests shall be allowed to take part in such contests.

2. No student shall play upon the University athletic teams except after physical examination by the Director of the Gymnasium (or by a responsible expert officer of the University acting in his stead and by his request) and with the approbation of the Director.

3. A student who was in attendance upon the University during a previous term or session must have passed satisfactory examinations upon at least eight hours of work before he will be allowed to represent the University in any athletic contest.

4. Inasmuch as a member of an athletic team of this University is a representative student and enjoys special honor in thus representing the University, this privilege shall be withheld from any student whose scholastic standing is discreditable. A preliminary report of the scholastic standing of the members of the football team shall be called for on October 15th and of the baseball team on March 15th, and the players notified of their deficiencies. Another report shall be called for on November 15th for the football team and on April 15th for the baseball team, at

which time any player deficient in a majority of his studies shall be debarred from representing the University during the remainder of the term.

5. The members of any athletic team may be allowed not more than ten lecture days leave of absence from the University for the purpose of engaging in athletic contests, but no student who is a member of more than one athletic team shall be allowed more than twenty lecture days leave of absence during the entire session for such purpose.

6. The manager of each athletic team shall submit to the Faculty Committee on Athletics or to the President a schedule of all engagements before positive arrangements are made.

7. Before any student can become a member or a substitute member of any athletic team in the University and take part in any intercollegiate contests he must make application to the Faculty Committee on Athletics in the University and secure the indorsed approval of that committee to his application. It shall be the duty of the Faculty Committee on Athletics to have the executive officers of the University indorse such application to the effect that the applicant is a registered student of the University.

8. It shall be the duty of the Faculty Committee on Athletics to inquire into and make a record of the athletic experiences of the applicant, and it shall be the duty of the applicant to appear before the committee and answer on his honor such questions as the committee may see fit to ask.

9. It shall be the duty of the Faculty Committee on Athletics to require a pledge in writing of the applicant, certifying on his honor that he has never accepted, directly or indirectly, remuneration, compensatory gift, valuable consideration, or promise thereof, for his athletic services, and that he is in the proper and strict sense of the word an amateur player in collegiate athletic sports, before the committee indorses his application.

10. It shall be the duty of the graduate manager, the head coach, the president and the treasurer of the Athletic Association, the members of the Athletic Council, the director of the gymnasium, and the manager and the captain of the team concerned to furnish the Faculty Committee on Athletics, on request, a statement to the effect that each member of an athletic team is above their suspicion as to his eligibility to represent the University as an amateur player before such player shall be allowed to take part in any contest.

11. No student who has been a member of, or substitute* member of, the football or baseball team of another college† or University during the preceding college year‡ shall be permitted to become a member of either team of this University during his first session, with the following exception: Such student shall be eligible for these teams at this University if he shall have registered in this University not later than within one week after the opening of the preceding spring term, and shall have been a student here during the said term.

12. No person whose name appears in the catalogue list of officers of instruction and administration of the University, and who receives remuneration therefrom, shall be a member of any athletic team representing the University.

13. The maximum period of eligibility for baseball and football shall be four years. In estimating the period of eligibility the years of baseball and football shall both be taken into account; but in no case shall a player be charged with four years athletic work unless at least four calendar years have elapsed from the time he entered upon his first intercollegiate contest, omitting from the calculation any sessional intermission by nonattendance. In case the player does not participate in either baseball or football during a college session, such session shall not be counted, but if such player does play on either the baseball or football team during any intermediate session, this shall count as if the player had played on both teams during such session.

14. No student of this University shall be eligible for any athletic team who shall have played upon or been a member or substitute member of any of the professional or league teams named in Classes A, B, C, and D in the publication of the American Sports Company. To the list of professional teams thus prescribed shall be added all league teams in any State or States which the leading university of such State or States declares professional and from which it debars its own players.

15. The Faculty Committee on Athletics is directed to assume responsible charge of the details of the athletic situation and to permit the playing of intercollegiate games with such colleges only

* The term "substitute" is interpreted to mean a student who has taken part in two or more intercollegiate contests.

† The term "college" is hereby interpreted to mean any college named in Table 28 of the Report of the U. S. Commissioner of Education of 1902, which has not fewer than 150 male students of collegiate grade recorded in the catalogue of the institution in question as students of the college year preceding the applicant's entrance into the University.

‡ The college year consists of one session divided into two terms.

as express a general conformity with the code of rules adopted by this faculty. The term "general conformity" is interpreted to mean conformity in regard to period of residence, maximum period of eligibility, and amateur standing.

Note.—In conformity with the regulations adopted by the Athletic Conference of Southern State Universities, beginning with the session of 1916-17, Regulation 11 will be substituted by the following:

"No student shall participate in any intercollegiate football or baseball contest during his first college year; and in no case shall a student be eligible for these teams unless he shall have registered in this University not later than within one week after the opening of the preceding spring term and shall have been a student here during the said term."

FRATERNITIES

Undergraduate students may join fraternities after registration in their Sophomore year. Fraternity men are not allowed to pledge Freshmen to join fraternities.

PART FOUR

THE SCHOOL OF LAW

THE SCHOOL OF MEDICINE

THE SCHOOL OF PHARMACY

THE SUMMER SCHOOL FOR TEACHERS

THE BUREAU OF EXTENSION

THE SCHOOL OF LAW

Edward Kidder Graham, A. M., D. C. L., LL. D., President.
Lucius Polk McGehee, A. B., Dean.

Lucius Polk McGehee, A. B., *Professor of Law.*
Patrick Henry Winston, *Professor of Law.*
Atwell Campbell McIntosh, A. M., *Professor of Law.*

The law school, which developed into the Law School of the University, was founded in 1843 at Chapel Hill as a private school by William H. Battle, then a judge of the Superior Court, later a justice of the Supreme Court of the State. In 1845 Judge Battle was made Professor of Law in the University, and it was provided that the degree of Bachelor of Laws should be conferred on those completing the prescribed two-year course. From the records of the University, however, it seems that few degrees were actually conferred. For a long time the school maintained a certain independence of the University. The Professor of Law received no salary, though he enjoyed the fees from his classes, and the students were not entirely subject to the discipline of the University. In 1899 the school was completely incorporated into the University, with the late Judge James C. MacRae, previously a justice of the Supreme Court of North Carolina, as the first Dean of the Law School.

REQUIREMENTS FOR ADMISSION

For admission to the regular work of the school, students, unless they are "special students" as explained below, must have completed 14 units of work. This amount of work is about equivalent to four years training in a high school. It is the same as the requirement for entrance to the Freshman class in the Academic Department of the University, and will be found explained on pages 33-42.

Students over twenty years of age who are not able to qualify as regular students may be admitted as "special students" upon presenting satisfactory evidence that they have received such training as will enable them to make profitable use of the opportunities offered in the school.

Seniors in the College will be admitted to take as electives courses selected, with the approval of the Dean, from the work of the law school.

The days for the registration of law students are the same as for the registration of students for the College. See page 146, or the University calendar.

Students who enter the School of Law for the spring term without having matriculated for the fall term should present themselves for matriculation at the end of the mid-year examinations, as shown in the University calendar in this catalogue. Students, however, are advised to enter at the fall term, if it is possible.

DEGREE OF LL.B.

The degree of Bachelor of Laws (LL. B.) will be conferred upon students who have satisfactorily completed the entire courses prescribed for the Junior and Senior classes of the Law School, and who satisfy the following conditions:

(*a*) Candidates must have completed academic courses equivalent to the work of the Freshman and Sophomore classes in the University.

(*b*) Candidates must present satisfactory theses on legal subjects approved by the Dean.

(*c*) Candidates must have spent at least one year in residence at the University as students in the School of Law.

In the discretion of the Law Faculty, credit may be given to candidates for courses completed in other schools of law of recognized standing.

Plans have been considered for enlarging and lengthening the curriculum, and the Law Faculty has been authorized to formulate a three years course of study for candidates for the degree of Bachelor of Laws. It is not considered wise to make this change at present, and it will be duly announced in the catalogue.

DEGREES OF A.B. AND LL.B.

The University offers also the combined degrees of A. B. and LL. B. for the successful completion of the following requirements:

1. The courses in the College outlined below.

2. All academic work to be completed by the end of the last regular examination period of the Junior year of the candidate.

3. The completion of all the courses in the School of Law prescribed for the LL. B. degree.

4. The presentation of a satisfactory thesis on a legal subject approved by the Dean of the School of Law.

Prescribed academic work:

FIRST YEAR	SECOND YEAR	THIRD YEAR
Eng. 1-2(3)	Eng. 3-4 (3)	Econ. 1-2 (3)
Eng. 11-12(1)	Lat. 3-4 (3)	Philos. 1-2 (3)
Math. 1-2 (4)	Hist. 3-4 (3)	Eng. (3)
Lat. 1-2 (4)	Select one: Greek 3-4 (3); French 3-4 (3); Ger. 21-22 (3)*	Hist. (3)
Select one: Greek 1-2 (4); French 1-2 (3); Ger. 1-2 (3)	Select one: Math. 3-4 (3); Phys. 1-2 (3); Chem. 1-2 (3)	Elective (3)
Hist. 1-2 (3)		

CERTIFICATES

Any student who has been in regular attendance in the School of Law and who has satisfactorily completed one or more courses is entitled to a certificate of attendance and standing.

NUMBER OF HOURS OF WORK REQUIRED OR PERMITTED

No student will be permitted to take more than eighteen hours of work weekly except with the special permission of the Faculty.

No student, unless he is also taking other courses in the University, will be permitted to take less than ten hours of work weekly, nor will a student taking less than ten hours weekly be considered as studying law within the rule of the Supreme Court requiring two years of study of law as a necessary preliminary of applicants for license to practice in North Carolina.

COURSES OF INSTRUCTION

The courses offered and the general order in which they are taken up are indicated in the following program of studies which is arranged to cover two years, known as the Junior Year and the Senior Year. The method of instruction varies in the different

* German 23-24 or 25-26 may be substituted.

courses. In some, text-books and lectures with collateral reading of cases form the basis of work. In others, the subject is developed directly from the study of selections of decided cases, and quizzes thereon.

Junior Year

FALL TERM

ELEMENTARY LAW: a general outline of the field of legal studies; Clark's *Elementary Law. Two hours a week.* Professor WINSTON.

CONTRACTS: the general principles of contract; McIntosh's *Cases on Contracts;* lectures. *Four hours a week,* Professor MCINTOSH.

PERSONS: Domestic Relations, including husband and wife, with marriage and divorce, parent and child, guardian and ward, infancy, insanity, drunkenness, and aliens; Peck on Domestic Relations; lectures with study of cases. *Two hours a week.* Professor MCGEHEE.

BAILMENTS: bailments, carriers, telegraphs and telephones; Goddard's *Cases on Bailments and Carriers. Two hours a week.* Professor WINSTON.

AGENCY: Mechem's *Cases on Agency. Two hours a week.* Professor MCGEHEE.

PROPERTY: a rapid outline of Personal Property, after which the study of Real Property is begun; lectures; Kirchwey's *Readings in Real Property;* Finch's *Cases on the Law of Property in Land. Three hours a week.* Professor MCGEHEE.

SPRING TERM

CRIMINAL LAW: Derby's *Cases on Criminal Law,* with statutes and selected cases. *Two hours a week.* Professor WINSTON.

TORTS: Burdick's *Cases on Torts. Three hours a week.* Professor WINSTON.

Sales: Erwin's *Cases on Sales. Two hours a week.* Professor McGehee.

Negotiable Instruments: *Huffcut's Cases on Negotiable Instruments,* and *The Negotiable Instrument Law. Two hours a week.* Professor McIntosh.

Quasi-Contracts: lectures and selected cases. *One hour a week.* Professor McGehee.

Property: a continuation of the course begun in the preceding term; same text-books. *Three hours a week.* Professor McGehee.

Pleading and Practice: a study of remedies and pleading, which continues throughout the remainder of the student's course, is begun. This term is devoted to common-law remedies and common-law pleading. Sunderland's *Cases in Common-Law Pleading. Two hours a week.* Professor McGehee.

Senior Year

FALL TERM

Constitutional Law: McClain's *Cases on Constitutional Law* and selected cases; lectures. *Four hours a week.* Professor McGehee.

Equity: Bispham's *Principles of Equity. Three hours a week.* Professor Winston.

Evidence: Hughes on *Evidence,* selected cases. *Three hours a week.* Professor McIntosh.

Insurance: Richards' *Cases on Insurance. Two hours a week.* Professor Winston.

Federal Courts: The United States Courts Cases; the study of the law and procedure in selected topics; Hughes on *Federal Jurisdiction. One hour a week.* Professor McIntosh.

Pleading and Practice: Pleading under the American code system. *North Carolina Code of Civil Procedure;* selected cases;

lectures. One meeting of the class each week is devoted to the preparation of actual pleadings and other practice forms. *Three hours a week.* Professor MCINTOSH.

SPRING TERM

PRIVATE CORPORATIONS: Canfield and Wormser, *Cases on Corporations. Three hours a week.* Professor MCGEHEE.

*PUBLIC CORPORATIONS: Macy's *Cases on Municipal Corporations. Two hours a week.* Professor MCINTOSH.

*BANKRUPTCY AND INSOLVENCY: Assignment for Benefit of Creditors, Creditors' Remedies, and the Federal Bankruptcy Act; lectures, selected cases. Students' Remington on *Bankruptcy. Two hours a week.* Professor MCINTOSH.

PARTNERSHIP: Mechem's *Cases on Partnership. Two hours a week.* Professor WINSTON.

*SURETYSHIP: Bunker's *Cases on Suretyship. One hour a week.* Professor WINSTON.

Alternates with Conflict of Laws; to be omitted in 1916-1917.

WILLS AND ADMINISTRATION: Costigan's *Cases on Wills and Administration. Two hours a week.* Professor WINSTON.

*CONFLICT OF LAWS: lectures and cases. *One hour a week.* Professor MCINTOSH.

Alternates with Suretyship; to be given in 1916-1917.

*ADMIRALTY: Hughes on *Admiralty. One hour a week.* Professor MCINTOSH.

PRACTICE AND PROCEDURE: a continuation of the work of the first term, with especial reference to equity pleading and extraordinary remedies. *Three hours a week.* Professor MCINTOSH.

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* From the subjects marked with an asterisk the student may omit a course or courses amounting to two hours of work weekly, devoting the time gained to the preparation of his thesis.

SCHEDULE OF LAW RECITATIONS

Senior Studies in CAPS; Junior in small type

	8:30	9:45	10:40	11:35	12:30
Fall	PLEAD.	CONST. LAW	FED. CTS.	Agency	EVIDENCE
MONDAY					
Spring	PLEAD.	PRIV. CORP.	Bills & Notes	Sales	BANKRUPTCY
Fall	Persons	EQUITY	Contracts	Property	CONST. LAW
TUESDAY					
Spring	Plead.	PARTNERSHIP	Torts	Property	MUN. CORP.
Fall	Elem. Law	EVIDENCE	Bailments	INSURANCE	Contracts
WEDNESDAY					
Spring	Crim. Law	CONFLICT L.	Bills & Notes	WILLS	BANKRUPTCY
Fall	PLEAD.	EQUITY	Contracts	Property	CONST. LAW
THURSDAY					
Spring	PLEAD.	PRIV. CORP.	Torts	Property	ADMIRALTY
Fall	Elem. Law	CONST. LAW	Bailments	INSURANCE	Agency
FRIDAY					
Spring	Crim. Law	PRIV. CORP.	Quasi-Contr.	WILLS	Sales
Fall	Persons	EQUITY	Contracts	Property	EVIDENCE
SATURDAY					
Spring	Plead.	PARTNERSHIP	Torts	Property	MUN. CORP.

MOOT COURT

A Moot Court for practice in the preparation of pleadings, the argument of law points, and the actual conduct of trials is a feature of the school. It is conducted by the students with the assistance and coöperation of the Faculty. The court meets weekly, a member of the Faculty presiding.

ADDITIONAL OPPORTUNITIES OF UNIVERSITY LIFE

Students in the Law School will be admitted without additional expense to the courses given in the Departments of Economics and of History in the College of Liberal Arts and to the courses in Public Speaking and English, subject to the rules stated as to the number of hours which a student may take. A student taking such a course must satisfy the entrance requirements for the course selected.

Students of the School may become members of the Dialectic and Philanthropic Literary Societies, where they may take part in or witness debates of a high order and train themselves in parliamentary law. As students of the University they enjoy all the privileges of the University library, the University gymnasium, and the organizations of the University generally, literary, social, and athletic.

THE LAW LIBRARY

The law library is housed in the Law Building and contains about 5,000 volumes. The annual revenue of a fund raised by the former students and friends of the late Professor John Manning, LL. D., who presided over the School for many years, is devoted to the purchase of books for the library. Free access to the library is allowed to the students of the School, though they are not permitted to take the books from the building.

PRIZES

The Henry R. Bryan Prize: Mr. Shepard Bryan of the Atlanta Bar offers annually, in honor of his father, the Honorable Henry R. Bryan of New Bern, N. C., a set of Cooley's Insurance Briefs to that member of the Senior Law Class who shall submit the best thesis upon an approved legal subject.

Callagan & Company, Law Publishers, Chicago, Prize: A copy of the Cyclopedic Law Dictionary is offered by the publishers to that member of the Senior Class who obtains the best general average in his work for the year.

Clark Prizes: The Chief Justice of the Supreme Court of North Carolina offers a prize to be awarded semiannually to the student of the University Law School applying to the Court for license to practice law at the bar examinations in August and February who is in the judgment of the Faculty best prepared to take the bar examination.

FEES AND EXPENSES

Tuition for Fall and Spring terms, each.....$35.00
Registration fees 15.00

There are no scholarships in the School. Good board is furnished at Swain Hall for $12.50 a month. In the village, board without rooms may be secured for from $10 to $16.50 a month.

The rent of rooms in the dormitories ranges from 75 cents to $6.00 a month, for each occupant; and for each room a charge of $1.00 a month is made for electric light and $1.00 a month for heat.

ADMISSION TO THE BAR OF NORTH CAROLINA

Admission to the bar of North Carolina is under the direct control of the Supreme Court of the State. The rules of the Court as to the examination and licensing of applicants are given on page 169. Where circumstances and means permit, the reading should be done at a regular school of law. But the requirements of the rule may be satisfied by private reading. Students who have read law for a year privately or in a law office may, by attending the school for one year, beginning either in September or January, and by attending a term of the summer school, have an opportunity to study or review the course required by the Supreme Court of applicants for license.

To do this it will be necessary for such students to select, with the approval of the Faculty, subjects from the regular courses of both the Junior and Senior years. Such a course is not advised or approved except in cases where limited means render it a regrettable necessity. Two years spent in systematic study under competent instructors is a minimum period for mastering even the elements of so wide, complicated, and technical a subject as the law. The student should remember that he is preparing for his life-work, and only detriment to that life-work can in general result from a feverish anxiety to cut short the period of preparation and to abridge the studies which experience has marked out for the acquisition of the necessary qualifications.

THE SUMMER LAW SCHOOL

A session of the School of Law extending over a period of ten weeks is maintained during each summer, during which is provided a review of the course prescribed by the Supreme Court of North Carolina for applicants for license, and an opportunity for instruction for men who cannot become resident students during the scholastic year.

SESSION

The term for the summer of 1916 begins June 15 and ends August 25, three days prior to the examination before the Supreme Court for admission to the Bar of North Carolina.

LECTURES AND RECITATIONS

At this session two daily lectures and recitations of one hour and a half each will be held by professors of the Law Faculty and competent instructors. In addition there will be frequent quizzes. The two courses offered are intended to cover the requirements for reading prescribed, given below, in the rules of the Supreme Court of North Carolina. The instruction is conducted by means of text-books, lectures, leading cases, quizzes, and moot court.

An outline of the work and of the time assigned to the various subjects is approximately as follows:

Domestic Relations (6 lectures); Contracts (18 lectures); Torts (12 lectures); Corporations (6 lectures); Evidence (6 lectures); Pleading and the Code (12 lectures); Criminal Law (8 lectures); Personal Property (6 lectures); Real Property (20 lectures); Executors and Administrators (6 lectures); Equity (9 lectures); Constitutional Law (9 lectures); Legal Ethics (2 lectures).

The text-books used will be, as far as possible, those used at the regular session of the school, but any standard text-book on any of these subjects will be accepted.

EXAMINATIONS

No entrance examination is required; but each student must satisfy the faculty that he has sufficient general education to en-

able him to take the course with profit to himself. Examinations are required as each subject is completed, and at the end of the term certificates to that effect are issued to such students as have passed with credit all examinations in both courses. These certificates will not entitle the recipients to any credit in the work of the regular school.

FEES AND EXPENSES

Tuition for term	$30.00
Registration and Incidental Fees	5.00

The above mentioned fees cover privileges of the University library, gymnasium, and baths. Board in the village, with room, will cost from $10.00 to $20.00 a month; without room, from $10.00 to $15.00.

For further information address the President of the University or the Dean of the School of Law, Chapel Hill, N. C.

RULES OF THE SUPREME COURT OF NORTH CAROLINA AS TO ADMISSION TO THE BAR

1. Applicants for license to practice law will be examined on the first Monday in February and the last Monday in August of each year, and at no other time. All examinations will be in writing.

2. Each applicant must have attained the age of twenty-one years or will arrive at that age before the time for the next examination, and must have studied: Ewell's Essentials, 3 vols.; Clark on Corporations; Schouler on Executors; Bispham's Equity; Clark's Code of Civil Procedure; Volume 1, Revisal (1905) of North Carolina; Constitution of North Carolina; Constitution of the United States; Creasy's English Constitution; Sharswood's Legal Ethics; Sheppard's Constitutional Text-book; Cooley's Principles of Constitutional Law. *Or their equivalents.*

Each applicant must have read law for two years at least, and file a certificate of good moral character, signed by two members of the bar who are practicing attorneys of this Court, and also a certificate of a Dean of a Law School, or of a member of the bar of this Court, that the applicant has read law under his instruction or to his knowledge or satisfaction for two years, and upon examination by said instructor has been found competent and proficient in said course. Such certificate, while indispensable, will, of course, not be conclusive evidence of proficiency. An applicant from another State can file a certificate of good moral character signed by any State officer of the State from which he comes. * * *

3. Each applicant shall deposit with the clerk the sum of $23.50 for the license and the clerk's fee before he shall be examined. * * *

THE SCHOOL OF MEDICINE

FACULTY

Edward Kidder Graham, A. M., D. C. L., LL.D., President.
Isaac Hall Manning, M. D., Dean.

Charles Staples Mangum, A. B., M. D., *Professor of Anatomy.*
Isaac Hall Manning, M. D., *Professor of Physiology.*
William DeBerniere MacNider, M. D., *Professor of Pharmacology.*
James Bell Bullitt, A. M., M. D., *Professor of Histology and Pathology.*
Robert Baker Lawson, M. D., *Associate Professor of Anatomy.*
Dennis Roscoe Wolff, *Assistant in Anatomy.*
Hugh Percival Smith, *Assistant in Histology.*
William Maurice Cappridge, A. B., *Assistant in Bacteriology.*
William Henry Harrell, Jr., *Assistant in Physiological Chemistry.*

Henry VanPeters Wilson, Ph. D., *Professor of Zoology.*
Edward Vernon Howell, A. B., Ph. G., *Professor of Pharmacy.*
Charles Holmes Herty, Ph. D., *Smith Professor of General and Industrial Chemistry.*
William Chambers Coker, Ph. D., *Professor of Botany.*
*Andrew Henry Patterson, A. M., *Professor of Physics.*
Alvin Sawyer Wheeler, Ph. D., *Professor of Organic Chemistry.*
James Munsie Bell, Ph. D., *Professor of Physical Chemistry.*
Elmer Adna Harrington, Ph. D., *Acting Professor of Physics.*
Clarence Ballew Hoke, S. B., *Instructor in Chemistry.*
John Grover Beard, Ph. G., *Instructor in Pharmacy.*
Vivian Leroy Chrisler, A. M., *Instructor in Physics.*
Wesley Critz George, A. M., *Instructor in Zoology.*
Henry Roland Totten, A. B., *Instructor in Botany.*
Victor Aldine Coulter, S. M., *Assistant in Chemistry.*
Lucius Coleman Hall, *Assistant in Chemistry.*
Oscar Asa Pickett, *Assistant in Chemistry.*
Charles Spurgeon Harris, *Assistant in Physics.*

* Absent on leave, 1915-1916.

HISTORICAL SKETCH

The School of Medicine was established in 1879 and Dr. Thomas W. Harris was chosen to direct its work. A course of two years was offered in theoretical and practical medicine, but owing to the limited facilities this plan was not found practicable and was abandoned in 1886. In 1890, however, the School was reopened and, under the direction of Dr. R. H. Whitehead, a course of one year, embracing only the elementary subjects—Anatomy, Chemistry, Physics, Physiology, etc.—was offered. As the requirements leading to the degree of Doctor of Medicine were increased by the leading medical colleges, the course was extended to embrace the first two years of the four-year curriculum. In 1902 a Clinical Department was established at Raleigh, but since the funds for a proper equipment could not be provided, this was abandoned in 1909. In 1898 the School was admitted to membership in the Association of American Medical Colleges, and in 1901 was incorporated as an integral part of the University, on the same footing as the Graduate and the other professional schools.

COURSES OFFERED

The following courses are offered:

1. A Combined Course Leading to the Degree of Bachelor of Science: This consists of a prescribed college course of two years and the medical course of two years. On completing this four-year course the School of Applied Science offers the degree of Bachelor of Science. The student is therefore able to obtain the collegiate degree and the degree of Doctor of Medicine in six years.

2. The Medical Course: The American Medical Association, the Association of American Medical Colleges, and other medical organizations recommend for the degree of Doctor of Medicine a graded course of four years in a medical school. They also suggest an arrangement of subjects in which the so-called laboratory subjects are to be given in the first two and the clinical subjects in the last two years. The medical course covers the subjects of the first two years. On completing the course a certificate is given which is accepted in full by most of the medical schools.

THE CURRICULUM

The Combined Course: College Studies

FIRST YEAR	SECOND YEAR
English 1-2, 3 hrs.	English 3-4, 3 hrs.
Mathematics 1-2, 4 hrs.	Physics 1-2, 3 hrs.
Chemistry 1-2, 3 hrs.	Zoology 1-2, 3 hrs.
Botany 1-2, 3 hrs.	Chemistry 33, 1½ hrs.
Select one: German 1-2, 3 hrs. / French 1-2, 3 hrs. / Latin 1-2, 4 hrs.	Chemistry 44, 1 hr.
	Select one: German 1-2 or 21-22,* 3 hrs. / French 1-2 or 3-4, 3 hrs. / Latin 1-2, 4 hrs.
	Select one: Drawing 1-2, 2 hrs. / History 1-2, 3 hrs. / Physics 3-4, 2 hrs.

In the College of Liberal Arts two hours of laboratory work are counted as one hour. In the combined course this system is followed. In the medical curriculum two hours of laboratory work are counted as two hours.

The Medical Course

FIRST YEAR

BIOLOGICAL CHEMISTRY—*Six hours a week until April 1.*

TOXICOLOGY—*Six hours a week from April 1 to the end of the term.*

COMPARATIVE ANATOMY—*Six hours a week, fall term.*

HUMAN ANATOMY—*Ten hours a week, fall term; fifteen hours a week, spring term.*

HISTOLOGY—*Nine hours a week, fall term.*

EMBRYOLOGY—*Six hours a week, spring term.*

PHARMACY—*Six hours a week, spring term.*

SECOND YEAR

HUMAN ANATOMY—*Nine hours a week, fall term.*

NEUROLOGY—*Six hours a week, fall term.*

BACTERIOLOGY—*Nine hours a week, fall term.*

PHYSIOLOGY—*Five hours a week, fall term; ten hours a week, spring term.*

PHYSIOLOGICAL CHEMISTRY—*Six hours a week, fall term.*

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* German 23-24 or 25-26 may be substituted for 21-22.

Pathology—*Twelve hours a week, spring term.*
Pharmacology—*Ten hours a week, spring term.*
Minor Surgery and Physical Diagnosis—*Four hours a week, spring term.*

SUMMARY OF FIRST AND SECOND YEARS

Subjects	*Hours*
Chemistry	288
Anatomy	868
Physiology	255
Bacteriology	144
Pathology	200
Pharmacology	167
Pharmacy	90
Minor Surgery and Physical Diagnosis	60
Total	2,072 hours

ENTRANCE REQUIREMENTS

I. Requirements for admission to the Combined Course. The requirements for admission to the combined course are fourteen units (corresponding to a course of four years in the High School), of which eight units are prescribed and six are elective. The prescribed units are as follows: English, 3 units; Mathematics, 2 units; American History and Civics, 1 unit; Foreign Language (Latin, Greek, German, or French), 2 units. The elective units may be selected from the following: English Language and Literature, 1 to 2 units; Foreign Language, 1 to 4 units; Natural Science, Physics, Chemistry (one year each), Biology, Zoology, Botany, Physiology (one-half year each), ½ to 2 units; Physiography, ½ unit; History, 1 to 3 units; Drawing, 1 unit.

At the discretion of the Committee on Entrance Certificates candidates may be admitted with conditions, provided the total number of units offered does not fall below a minimum of 12 units, and provided the conditions are of such nature that, in the judgment of the committee, they may be removed on or before September of the following year. Provision is made for the removal of conditions in a limited number of subjects during the Summer School. No applicant will be admitted to the Medical School who has less than 14 units.

II. Requirements for Admission to the Medical Course. The requirements for admission to the medical course are one year (30 semester hours) of college work, embracing the following subjects: Chemistry, Biology, Physics, and English, German, or French.

ANNOUNCEMENT: *Beginning with the session 1917-1918, the requirements for admission to the medical course will be two years of college work. This will include one year of Chemistry, Physics, Biology, one modern language (French or German), and such other college courses as may be acceptable to the Dean to count a minimum of sixty semester hours.*

III. Admission to Advanced Standing. Candidates for admission to the second year of the medical course must present certificates from an accredited medical school stating that they have had the required fourteen units, the year of college work as indicated in Section II, and have completed the subjects of the first year of the medical course as outlined on page 172.

EXAMINATIONS

Regular examinations are held during the two regular examination periods of the College of Liberal Arts. Special examinations will be given for the purpose of making up deficiencies during registration week. A fee of $5.00 will be charged each applicant for an examination at any other time. An examination will not be allowed if the student is charged with ten per cent of unexcused absences or with absences amounting to twenty per cent of the total number of hours assigned to the subject.

CERTIFICATES

A certificate will be granted to a student who completes satisfactorily the required preliminary work and the medical course. In the event of a failure to complete the work a statement indicating the subjects completed will be given. Credits will not be allowed for attendance only.

EQUIPMENT

The Medical Building, Caldwell Hall, is a modern laboratory building and each laboratory is well equipped with all apparatus

necessary for teaching purposes. The departmental library is supplied with a few well chosen journals, especially those concerned with the laboratory subjects. No unnecessary restrictions are placed on the use of the laboratories and the library, and the students are encouraged to use them in every way that may be profitable.

The students also have free access to the General Library, in which there are a number of valuable medical books, and the Chemical, Physical, and Biological laboratories.

THE GENERAL PLAN OF INSTRUCTION

In the arrangement and conduct of the courses an effort is made to follow modern ideals in medical education. A year of college training in Chemistry, Physics, and Zoology is insisted upon as the minimum preparation for the study of medicine. In order, however, to encourage a more thorough preparation, the degree of Bachelor of Science is offered to those students who complete a prescribed college course of two years and the two years of the medical course. In offering this degree the value of a properly directed college course of four years is not minimized —on the contrary, is earnestly recommended.

In the arrangement of the course of studies the attempt is made to have the subjects follow in natural sequence. Elementary courses in General Chemistry, Physics, and Zoology having been completed in the premedical year, more advanced courses in these subjects are pursued. In the first year Organic Chemistry and Comparative Anatomy, with special reference to the requirements of the medical student, Gross Human Anatomy, Histology, Embryology, and an elementary course in Pharmacy are studied. In the second year Human Anatomy, Physiological Chemistry, and Bacteriology are completed in the first half; Materia Medica and Pharmacology, Pathology, and Normal Physical Diagnosis in the second half. Physiology is begun and completed in the second year. At the expiration of the two years the student will have completed the fundamental branches of medicine, and will be prepared to enter upon the study of the more practical subjects.

In the plan of instruction the laboratory method, supplemented by systematic lectures and demonstrations, is pursued. The lectures and the laboratory courses are given contemporaneously as

far as possible, for it is believed that the student, in this way, not only acquires technical skill, but a more thorough knowledge of the subject.

When advisable the classes are divided into small sections so that the work of the students is under the direct supervision and close observation of the instructor. Frequent oral and written quizzes and a final examination are required in each subject, and in the laboratory courses each student is required to record the observations in a note book, which must be submitted from time to time to the instructor and is held for a part of the final grade.

Regular attendance upon all classes is required of each student. A student who is absent twenty per cent of the total number of hours assigned each subject, or is charged with ten per cent of unexcused absences, is denied the privilege of an examination in the subject in which the absences occur.

EXPENSES

The following are the charges a term, payable at the beginning of each term in September and January respectively:

Tuition	$35.00
Fee for matriculation (registration, etc.)	15.00
Total	$50.00

In addition the following fees will be charged for laboratory courses a term:

Chemistry 33, $7.50; Chemistry 44, $5.00; Chemistry 71-72, $5.00; Physiological Chemistry, $5.00; Zoology 1-2, $3.00; Zoology 3-4, $5.00; Botany 1-2, $3.00; Experimental Physiology, $5.00; Experimental Pharmacology, $5.00; Pharmacy, $5.00; Bacteriology, $2.50; Pathology, $2.50; Histology, $2.50 (fall); Anatomy, $5.00; the use of a microscope, $1.00.

The laboratory fees are divided approximately equally among the four terms. The total charge is between $60.00 and $63.00 a term.

Good board is furnished at Swain Hall for $12.50 a month. In the village, board without rooms may be secured for from

$10.00 to $16.50 a month. The rent of rooms in the dormitories ranges from 75 cents to $6.00 a month for each occupant. For each room a charge of $2.00 a month is made for electric light and heat.

PRIZES AND SCHOLARSHIPS

The Wood Scholarship. (Established in 1895.) Mrs. Mary Sprunt Wood, of Wilmington, has founded, in memory of her husband, the late Dr. Thomas Fanning Wood, a scholarship covering the tuition and fees.

COURSES OF INSTRUCTION

PREMEDICAL COURSES

Botany

1-2. General Botany: an introduction to the structure and classification of plants; lectures with laboratory work. Elective in the first year. Professor Coker and Mr. Totten.

Laboratory fee, $3.00 a term.

4. Introduction to Systematic Botany. Special attention to medical plants. Laboratory and field work, with recitations. Elective in the second year; prerequisite, Botany 1-2. *Spring term, three hours.* Professor Coker and Mr. Totten.

Laboratory fee, $3.00.

5-6. Physiology: a general course in plant physiology; lectures with laboratory work and field experiments. Elective. *Three hours, both terms.* Professor Coker and Mr. Totten.

Laboratory fee, $3.00 a term.

Chemistry

1-2. General Descriptive Chemistry: a study of the elements and their compounds. Lectures with laboratory work. Students entering with Chemistry credits may take special laboratory work in inorganic preparations. *Both terms, three hours.* Professor Venable, Messrs. Hoke and Hall.

Laboratory fee, $2.50 a term.

13-14. Chemistry of Foods and Sanitation: composition of foods, their preservation, adulteration, and industrial production. Discussion of sanitation, disinfection, sewage disposal. Prerequisite, Chemistry 1-2. Elective. *Both terms, two hours.* Professor VENABLE.

33. Qualitative Analysis: laboratory work with lectures; practice is given in the qualitative analysis of known and unknown mixtures. *Fall term, three hours.* Professor WHEELER and Mr. COULTER.

Laboratory fee, $7.50.

44. Elementary Quantitative Analysis: a brief course in gravimetric methods, followed by a more extended course in volumetric methods. *Spring term, two hours.* Professor BELL and Mr. COULTER.

Laboratory fee, $5.00.

61-62. Organic Chemistry: lectures and laboratory work. Prerequisite, Chemistry 31-32. Elective. *Both terms, three hours.* Professor WHEELER.

Laboratory fee, $4.00 a term.

63-64. Organic Chemistry: laboratory, including analysis of (*a*) pure organic compounds, (*b*) food products, (*c*) commercial dyestuffs. Elective. Prerequisite, Chemistry 61-62 or 71-72. *Both terms, two hours.* Professor WHEELER.

Laboratory fee, $6.00 a term.

71-72. Biological Chemistry: Lectures and laboratory work. (*a*) A general survey of Organic Chemistry and the synthetic preparation of compounds of special interest to medical men. (*b*) A more detailed study of the fats, carbohydrates, and proteins, including laboratory work. Text: Haskins' *Organic Chemistry. Fall term and spring term to April, three hours.* Professor WHEELER and Mr. PICKETT.

Laboratory fee, $5.00 a term, including Chemistry 74.

74. Toxicology: laboratory work; the chemical behavior of poisons and their separation from foods and organs are studied in

the laboratory. Text: Autenrieth and Warren's *Detection of Poisons.* Required. *Spring term after April 1, three hours.* Professor Wheeler and Mr. Pickett.

Physics

1-2. General Physics: lectures, with text-book; problems; laboratory work. Prerequisite, Mathematics 1-2. *Both terms, four hours.* Professor Harrington and Mr. Chrisler.

Laboratory fee, $1.50 a term.

3-4. Electricity and Magnetism: a study of the phenomena of electricity and magnetism, and their application in modern life, including the use of the X-rays, the rays of Radium and other applications in Electrotherapeutics. Laboratory work required. Elective. *Both terms, two hours.* Professor Harrington.

Laboratory fee, $2.00 a term.

Zoology

1-2. Elements of Zoology: an introductory course giving an outline of the classification and structure of animals, fundamentals of histology, embryology, and physiology, with some consideration of biological theories; lectures with laboratory work. Professor Wilson and Mr. George.

Laboratory fee, $3.00 a term.

3-4. Comparative Anatomy of Vertebrates (first half); dissection of vertebrate types: amphioxus, cyclostome, fish, bird, mammal. Professor Wilson.

Laboratory fee, $5.00 a term.

MEDICAL COURSES

Histology

1. General Histology and Organology. This course includes (*a*) the study of fundamental tissues, followed by (*b*) the study of the microscopic structure of the various organs, and (*c*) the fundamentals of histological technique. Lectures, recitations, and laboratory. Text, Piersol. *Fall term, nine hours a week.* Professor Bullitt and Mr. Smith.

2. Advanced Histology: To those who have completed course 1 or its equivalent opportunity will be offered to pursue advanced work or original investigation in this subject. Arrangements for this course may be made with Professor Bullitt.

Course 1 is required of all medical students. Course 2 is elective.

Anatomy

Professor Mangum, Associate Professor Lawson, and Mr. Wolff.

The courses in anatomy are made as practical as possible. The student makes a complete dissection of all structures under the constant supervision and direction of an instructor, who insists upon the use of text-books, guides and atlases, and holds practical examinations upon all parts dissected. Laboratory talks, demonstrations and conferences take the place of lectures. In those subjects most difficult for the beginner the structures are demonstrated to each individual student.

The courses include gross anatomy, the topography of the body, the application and relation of anatomy to medicine and surgery, the microscopic anatomy of the central nervous system and human embryology. For course in Histology, see page 179. Ample facilities are offered to those who may desire to pursue advanced work of original investigation in the field of anatomy.

FIRST YEAR

1. Osteology, arthrology, descriptive anatomy of the thoracic and abdominal viscera, topographical anatomy of the thorax and abdomen, and the dissection of one-half of the structures of the body. *Both terms.*

2. Embryology: The processes of development as manifested in the embryos of the frog, the chick, and the pig. The work in the laboratory is supplemented by a course of lectures upon the development of the human body. *Spring term.*

SECOND YEAR

3. The completion of the dissection of the body. *Fall term.*

4. Topographical and Applied Anatomy: given in connection with the work in the dissecting room. Embraces the external

markings of the organs (viscera, vessels, nerves, etc.), their location and inter-relationships, and the application of anatomy to medicine and surgery. Dissections, models, preparations, and numerous drawings by the students are used as aids in this course. At the end of the second year a final examination is held upon the entire subject of gross anatomy. *Fall term.*

5. Neurology: A special laboratory study of the gross and microscopic anatomy of the cord and encephalon. Each student is provided with numerous prepared dissections of the human brain and a series of sections through the cord and the brain stem which he studies with the aid of a guide. A human brain is then given to each group of four men and by them dissected in order to correlate and systematize the work already done. A practical examination tests the student's ability to locate the various tracts and nuclei. *Fall term.*

Texts: Cunningham, Gray (Howden), and Piersol; Cunningham's *Manual;* Heisler's *Practical Anatomy; Brain and Spinal Cord* (Villiger); *Anatomy of the Brain* (Whitehead); *Development of the Human Body* (McMurrich); *Laboratory Text-book of Embryology* (Minot).

Physiology

Professor Manning and Mr. Harrell.

The course in Physiology is given in three parts, as follows:

1. General Physiology: a lecture course of five hours a week extending through the year; a brief account of cell physiology is followed by a detailed discussion of the facts and theories of Human Physiology; attention is called to the application of physiology in medical practice as far as possible. Text: Howell.

2. Physiological Chemistry: a laboratory course of six hours a week during the fall term. The purely chemical aspects of Biochemistry are considered in the course in Organic Chemistry (Chem. 71-72) given in the first year. In the course in Physiological Chemistry a practical application of the principles of Bio-chemistry is made in the study of Human Physiology. The chemistry of digestion, of the secretions, of blood, and of the urine is studied in detail, qualitatively and quantitatively, and such tissues

are examined as will afford evidence of the course of metabolic processes. Laboratory Notes. References: Hammarsten, Hawk.

3. Experimental Physiology: a laboratory course of five hours a week during the spring term. In this course the student studies the heart and neuro-muscular systems on the turtle and the frog; the circulatory, respiratory, and glandular systems on the mammal. In the former the class is divided into groups of two and in the latter into groups of four. Each group is supplied with mimeographed directions for the performance of each experiment and a full equipment of apparatus, and each student is required to keep a record of the observations, including tracings. Reference: Stewart, Porter, Hill, etc.

Materia Medica and Pharmacology

Professor MACNIDER and Mr. CAPPRIDGE.

1. Materia Medica: the general consideration of the subject is given in the first year of the medical curriculum. In the second year the important drugs are studied in groups, the classification depending upon their physiological action. Emphasis is given to the most important drugs, and their physiological action is studied in detail.

2. Prescription Writing: as early as possible in the course the student's attention is directed to the logical application of various drugs to the relief of morbid conditions. Hypothetical conditions are discussed, and each student writes one or more prescriptions and gives his reasons for the use of the various drugs he employs. The prescriptions are discussed and criticised by the students and the instructor.

3. Pharmacodynamics: this part of the general course in Pharmacology consists in a careful and accurate study of the action of practically all of the more important drugs on the lower animals. For this work, the higher animals, such as the cat and dog, are chiefly used. The class is divided into groups of two or four, and the experimental work is conducted by the student. Each student is required to hand in to the instructor at the completion of the course a laboratory note book containing a detailed account of each experiment, an explanation of the results obtained, and

the tracings made during the experiments. Oral and written recitations are frequently held. Text: Cushny, *Pharmacology and Therapeutics*. Reference: Sollman.

4. Advanced Pharmacology: two types of courses will be offered: (*a*) an experimental study of the action of various drugs upon the normal animal; (*b*) an experimental study of the action of various drugs and other agents upon the pathological animal.

Bacteriology

Professor MacNider and Mr. Cappridge.

The student learns by practical experience the methods of cultivating, staining, and identifying the principal pathogenic bacteria. A few nonpathogenic and saprophytic forms are studied. The pathological significance of the various forms is explained by lectures, and the pathogenicity of some of the forms is determined by inoculation experiments performed by the class. At intervals during the course unknown organisms are given for identification. In addition to this, each student is required to isolate from the air, water, fecal matter, or pus two organisms and determine their species. The latter part of the course is devoted to the bacteriological study of milk and water. Text: Jordan. Reference: Park and McFarland.

Minor Surgery and Physical Diagnosis

Associate Professor Lawson.

The class practices the application of bandages, and learns the modern method of dressing wounds. A short course in Physical Diagnosis is given. Text: Davis on Bandaging.

Pharmacy for Medical Students

Assistant Professor Beard and Mr. Allen.

This course in pharmacy will consist of two lectures supplemented by two laboratory periods each week. Beginning with a consideration of the metric system as applied to writing prescriptions and preparing formulæ, the course will embrace, successively, medical arithmetic, prescription writing, official galenical and magistral preparations with their doses, cellulose and its compounds, carbohydrates, coal and wood tar products, resins, gums,

esters, volatile oils, alkaloids, animal drugs, and, lastly, solubility and incompatibility. The student will be required to make the preparations commonly prescribed, in order that he may be acquainted with their nature and composition. In addition, he must demonstrate the various forms of incompatibility liable to occur in prescriptions. Text-book: DeLorme's *Manual of Pharmacy for Physicians. First year. Spring term, six hours.*

Hygiene

Professor Bullitt.

A short course in the elementary principles of Hygiene and Sanitation.

Pathology

Professor Bullitt and Mr. Smith.

1. General and Special Pathology: this course embraces a thorough consideration of general pathological processes from their chemical and physiological as well as their morphological aspects. The subject of Special Pathology is considered upon the same broad basis. The course includes a series of lectures and recitations combined with laboratory work and demonstrations of gross and microscopic preparations. Text: McFarland. *Spring term,* lectures and recitations, *four hours a week.* Laboratory, *nine hours a week.* Prerequisite, Histology 1.

2. Advanced Pathology: opportunity for advanced work in Pathology or for original investigation will be offered to a limited number of students upon the presentation of satisfactory evidence of ability to pursue work of this character.

Course 1 is required of all medical students. Course 2 may be elected by special arrangement with Professor Bullitt.

Advanced Courses for Practicing Physicians

Opportunity for advanced work or for original investigations is offered in all of the laboratories to practicing physicians by special arrangement with the instructors.

SCHEDULE OF RECITATIONS

FIRST YEAR

Hour / Term	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Fall	Chem. 71-72	Histology	Chem. 71-72	Histology	Histology	Histology
8:30						
Spring	Chem. 71-72	Anatomy	Chem. 71-72	Anatomy		Anatomy
Fall	Histology	Histology	Histology	Histology	Histology	Histology
9:45						
Spring	Pharmacy	Anatomy	Pharmacy	Anatomy		Anatomy
Fall	Histology	Histology	Histology	Histology		Histology
10:40						
Spring	Embryology	Anatomy	Embryology	Anatomy		Anatomy
Fall	Anatomy	Anatomy	Anatomy	Anatomy		Anatomy
11:35						
Spring	Embryology		Embryology			
Fall	Anatomy	Anatomy	Anatomy	Anatomy		Anatomy
12:30						
Spring	Embryology	Anatomy	Embryology	Anatomy		Anatomy
Fall	Chem. 71-72	Zoology 3-4	Chem. 71-72	Zoology 3-4	Zoology 3-4	
2:30 4:30						
Spring	Chem. 71-72	Pharmacy	Chem. 71-72	Pharmacy		

SECOND YEAR

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3
Pharma-cology	Pharma-cology	Pharma-cology	Pharma-cology	Pharma-cology	Pathology
Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3
Physiology	Physiology	Physiology	Physiology	Physiology	Pathology
Anatomy 2	Bacteriology	Anatomy 2	Bacteriology	Anatomy 2	Bacteriology
Pharma-cology	Pathology	Bacteriology	Pathology	Physiology	Pathology
					Bacteriology
Pharma-cology	Pathology	Pathology	Pathology	Physiology	Pathology
Physiology	Physiology	Physiology	Physiology	Physiology	
Pharma-cology	Pathology	Pathology	Pathology	Physiology	
Physiolog. Chem.	Bacteriology	Physiolog. Chem.	Bacteriology	Physiolog. Chem.	
Pharma-cology	Minor. Surg. & Ph. Diag.	Hygiene	Minor. Surg. & Ph. Diag.	Physiology	

THE SCHOOL OF PHARMACY

FACULTY

Edward Kidder Graham, A. M., D. C. L., LL. D., President.
Edward Vernon Howell, A. B., Ph. G., Dean.

Edward Vernon Howell, A. B., Ph. G., *Professor of Pharmacy.*
John Grover Beard, Ph. G., *Assistant Professor of Pharmacy.*
Jesse Eli Turlington, *Assistant in Pharmacy.*
Arthur Levi Fishel, Ph. G., *Assistant in Pharmacy.*

Francis Preston Venable, Ph. D., D. Sc., LL. D., *Francis Preston Venable Professor of Chemistry.*
Henry VanPeters Wilson, Ph. D., *Professor of Zoology.*
William DeBerniere MacNider, M. D., *Professor of Pharmacology.*
Isaac Hall Manning, M. D., *Professor of Physiology.*
Charles Holmes Herty, Ph. D., *Smith Professor of General and Industrial Chemistry.*
William Chambers Coker, Ph. D., *Professor of Botany.*
Alvin Sawyer Wheeler, Ph. D., *Professor of Organic Chemistry.*
James Munsie Bell, Ph. D., *Professor of Physical Chemistry.*
Clarence Ballew Hoke, S. B., *Instructor in Chemistry.*
Vivian Leroy Chrisler, A. M., *Instructor in Physics.*
Wesley Critz George, A. M., *Instructor in Zoology.*
Henry Roland Totten, A. B., *Instructor in Botany.*
Carnie Blake Carter, S. M., *Assistant in Chemistry.*
Lucius Coleman Hall, *Assistant in Chemistry.*
Oscar Asa Pickett, *Assistant in Chemistry.*
Charles Spurgeon Harris, *Assistant in Physics.*

HISTORICAL SKETCH

In 1880 Dr. Thomas W. Harris of the Medical School of the University was instrumental in establishing a Pharmacy School in connection with the School of Medicine. Dr. Harris was Professor of Anatomy, Materia Medica, and Pharmacy. The faculty of the School of Pharmacy consisted, in addition to Professor

Harris, of Frederick W. Simonds, Professor of Botany and Physiology, and Francis P. Venable, Professor of Chemistry. The course in pharmacy extended over two sessions of five months each, and led to the degree of Graduate in Pharmacy (Ph. G.). The school was continued until the resignation of Dr. Harris in 1886, when it was abandoned completely. In the fall of 1889 the school was revived by Dr. Richard H. Whitehead, but again its career was cut short.

In March of 1897 the present School of Pharmacy was established, and Edward Vernon Howell, A. B. Wake Forest College, and Ph. G. Philadelphia College of Pharmacy, was elected Professor of Pharmacy and given charge of the school. The school occupied the ground floor of the new West Building, which had been provided with laboratories, lecture rooms, a herbarium, and a reading room. The first lectures, offered in September of 1897, pertained to practical and theoretical pharmacy, materia medica, physiology, physics, general and analytical chemistry, and botany. The course extends over two sessions of nine months each and leads, as did the courses in the initial school, to the degree of Graduate in Pharmacy (Ph. G.).

The School has gradually developed with respect to members of the faculty, equipment, apparatus, and attendance. In the summer of 1912 it was moved to Person Hall, a commodious, well-lighted, well-ventilated building containing ten rooms. The pharmaceutical library has been made valuable by many historical and modern books on pharmacy and its allied branches by bound volumes of proceedings and journals, either given by friends or purchased by the University. In 1914 two new courses in pharmacy were added to the curriculum: one, a three-year course, leads to the degree of Doctor of Pharmacy (P. D.); the other, also a three-year course, leads to the degree of Pharmaceutical Chemist (Ph. C.).

ADVANTAGES

The location of the School of Pharmacy at the seat of the University assures to the students the most modern scientific instruction, with all the laboratory facilities of the undergraduate department, as well as the courses of instruction in the allied branches. These opportunities will meet the requirements of a large number of students who were compelled heretofore to obtain

their pharmaceutical education in other States. Briefly stated, the advantages are as follows:

1. Thorough, careful, *individual* training.

2. The practical experience derived from active work in the laboratories.

3. Intimate association with the other departments of the University, to all of which the student of Pharmacy has access, and the daily contact with students pursuing various branches of learning.

4. The use of the large library and reading room and the well-equipped gymnasium.

5. The comparatively small cost at which a course in pharmacy may be obtained.

6. Advanced work in pharmacy such as can be had in only a few schools of pharmacy in the South.

The success of students of this school in their examinations before the State boards has been very gratifying. These students have been applicants before the State boards of Maryland, Pennsylvania, Virginia, North and South Carolina, Tennessee, Alabama, Georgia, and Florida.

ADMISSION

Candidates for admission into the School of Pharmacy should present themselves on the same days and at the same hours with candidates for admission into the college. For the next academic year these days will be *Tuesday* or *Wednesday, September 12* or *13, 1916,* and *Tuesday* or *Wednesday, January 2* or *3, 1917.* The session of the School of Pharmacy is of the same length as the College year, beginning *September 12, 1916,* and ending *June 6, 1917.*

Candidates for the degree of Ph. G. must be on entering at least 17 years old, and must have completed a high school course of study. They may, however, enter the first-year course without these prerequisites.

The members of the School of Pharmacy enjoy all the privileges extended to other students in the University.

EXPENSES

The charges for each term are payable at the beginning of the term. They are as follows:

Tuition	$30.00
Registration and incidental fees	15.00

There are additional fees as follows:

FIRST YEAR

Chemistry 1-2 (each term)	$2.50
Physics A (each term)	1.00
Pharmacy (each term)	2.50

SECOND YEAR

Chemistry 31-32 (each term)	$5.00
Chemistry 74 (April and May)	2.50
Pharmacy	2.50

THIRD YEAR

Chemistry 41-42 (each term)	$7.50
Chemistry 61-62 (each term)	4.00
Chemistry 63-64 (each term)	6.00

The students of Pharmacy are entitled to the use of the gymnasium, the library, and reading room and, in case of sickness, to medical attention and the use of the infirmary.

Good board is furnished at Swain Hall for $12.50 a month. In the village, board without rooms may be secured for from $10 to $16.50 a month. The rent of rooms ranges from 75 cents to $6 a month. For each room is made a charge of $2 a month for electric light and heating.

PRIZES

The Bradham Prize, offered by Mr. C. D. Bradham, of New Bern, N. C., will be given to the student making the highest general average during the two years of study.

The J. G. Beard Prize. To the student who makes the best general average during the first year of study and who passes the North Carolina Board of Pharmacy examination at the comple-

tion of the same year will be given a membership in the North Carolina Pharmaceutical Association.

Prizes will also be given:

1. For the best thesis.
2. For the best collection of native medicinal herbs.
3. For the best exhibit of chemical salts made by a second-year student.
4. For the best work in the recognition of materia medica specimens.
5. To the student recognizing the largest number of pharmaceutical preparations.

EXAMINATIONS

Final examinations are held at the end of each term on the subjects embraced in the course.

Quizzes upon the different branches are held regularly. Specimen quizzes upon Materia Medica, Chemistry, and Pharmacy are held once a week, and consist in the recognition and correct writing of the official names of the specimens presented.

Students are required to make an average of 70 per cent on all examinations and quizzes.

COURSES LEADING TO THE DEGREE OF GRADUATE OF PHARMACY

In order to be recommended for the degree of Graduate of Pharmacy (Ph. G.) the student must have completed with credit the course of study outlined below. The course extends over two sessions of nine months each. The student must have completed the work of both sessions in the School of Pharmacy of this University, or of one session (the second) here after one in some other recognized school of pharmacy. He must obtain satisfactory marking in attendance, making a general average of 70 per cent in the various branches, and submit a satisfactory thesis. The thesis must be an original essay embodying the results of the student's personal research in some branch of pharmacy which he has prosecuted under the direction of the professor who assigned him the subject. The subject of such thesis must be announced on or before February 1 to the Dean of the Faculty. On May 2 the thesis shall be read before the Dean of the School, subject to criticism

and correction. The corrected and approved thesis must be handed to the Registrar in typewritten form on or before May 15. It will be published at the discretion of the Dean of the School. The student must have had a practical experience of at least four years with some qualified pharmacist in a dispensing store. Satisfactory evidence on this point must be submitted to the Dean of the School and a certificate deposited with the Registrar on or before May 15. Students who have not had the full four years experience will be permitted to stand examinations for graduation, but their diplomas will be withheld until they shall have satisfied this requirement. Of the three years of experience required for license by the State Board of Pharmacy, the work done in the pharmaceutical laboratory will count for one and only one.

FIRST YEAR

Pharmacy 1 (5)
Pharmacy 4 (4)
Pharmacy 8 (3)
Pharmaceutical Botany (3) or
Elementary Physics A (3)
Chemistry 1-2 (3)

SECOND YEAR

Pharmacy 2 (5)
Pharmacy 5 (8)
Pharmacy 6 (3)
Materia Medica (5)
Materia Medica and Pharmacology (5) (optional)
Chemistry 31-32 (2)
Chemistry 74, April and May (3)
Physiology (3), Fall Term.

COURSES OF INSTRUCTION

Pharmacy

1. Theory and Practice of Pharmacy. This course consists of lectures upon the following subjects, with practical demonstrations and the employment of proper apparatus whenever necessary: metrology, comminution, heat evaporation, distillation, sublimation; fusion, calcination, granulation, oxidation, reduction, etc.; solution of solids, liquids, and gases; deliquescence, efflorescence,

etc.; colation, filtration, decolorization, clarification, precipitation, etc.; maceration, expression, infusion, decoction, etc.; percolation, and study of the following: waters, syrups, honeys, glycerites, mucilages, mixtures, spirits, elixirs, liniments, collodians, tinctures, wines, vinegars, and fluid extracts. Text: Remington, *Theory and Practice of Pharmacy.* First year. *Both terms, five hours.* Professor HOWELL.

2. Theory and Practice of Pharmacy. The official forms and preparations of drugs are taken up in detail. Beginning with the inorganic compounds, the salts are considered with regard to their commercial qualities and pharmaceutical uses and preparations. The organic compounds are studied, commencing with the salts of the organic acids and passing to the natural and organic compounds. Second year. *Both terms, five hours.* Professor HOWELL.

4. Operative Pharmacy. (Laboratory.) This course is designed to demonstrate the various operations outlined in Pharmacy 1 and to drill the student in the correct preparation or manufacture of the galenicals and simple salts of the Pharmacopœia. He is required to make, under the direction of the instructors, those preparations which enter into a prescription, and is taught the correct uses of the different apparatus required in a drug store. Text-book: Remington's *Theory and Practice of Pharmacy.* First year. *Both terms, four hours.* Assistant Professor BEARD and Mr. TURLINGTON.

5. Operative Pharmacy. (Laboratory.) A continuation of course 4. A practical course which supplements the lectures in Pharmacy 2. Text-books: Remington's *Theory and Practice of Pharmacy* and Arny's *Principles of Pharmacy.* Second year. *Both terms, four hours.* Professor HOWELL and Mr. FISHEL.

6. Urinary Analysis. By means of laboratory work, supplemented by lectures, the student is drilled in making thorough qualitative and quantitative analyses of urine. The phenomena of urine secretion and elimination and the physiological and pathological constituents of urine, with exhaustive tests for determining the presence or absence of these constituents, are fully dwelt upon. In addition, the student is taught to select and arrange the apparatus required to make urine analyses in the drug store. Second

year. *Fall term, three hours.* Text-book: Hawks' *Physiological Chemistry.* Assistant Professor Beard.

8. Pharmacy. In this course, which deals with several branches of pharmacy, synonyms are first taken up, and all common and practical names of plants and chemicals are studied. Along with synonyms, the specimens commonly seen in drug stores are shown and methods given for the recognition of each. This is followed by a detailed list of all terms descriptive of the therapeutic action of drugs. A short course is given in pharmaceutical Latin. A student of this course will be taught to read and write correctly prescriptions in full Latin. In addition, instruction is given in the Latin prefixes and suffixes used to form the names of chemicals and galenicals.

The spring term is wholly taken up with a complete course in pharmaceutical arithmetic. Beginning with the metric system, the student is instructed in Alligation, Specific Gravity, Specific Volume, Percentage, Proportion, etc. First year. Text-book: Sturmer's *Pharmaceutical Arithmetic. Both terms, three hours.* Assistant Professor Beard.

Materia Medica and Pharmacology

1. Pharmaceutical Materia Medica. The individual drugs are considered from the standpoint of their origin, history, appearance, structure, active principles, chief medicinal properties, official preparations, and doses. These drugs are grouped and studied according to the families to which they belong. Later they are classified into the therapeutic groups, based on their action, *i. e.,* whether they are stimulants, alteratives, irritants, astringents, etc. The subject is amply illustrated from the large collection of the School, which includes all the drugs of the pharmacopœia as well as many unofficial plant parts, by means of colored plates and pictures, and from the library, which contains a large number of valuable books on the subject. Text-books: Bastin's *College Botany* and Sayre's *Organic Materia Medica and Pharmacognosy.* First year. *Both terms, two hours.* Assistant Professor Beard.

2. Materia Medica. The study of materia medica is continued throughout the second year. The drugs are treated as in the first year, except that the action of the drugs on the human body is dealt with at greater length, and the inorganic and animal drugs

are considered as well as the organic. Serums, antitoxins, vaccines, and biologicals in general, the toxicology of the poisonous drugs, and the methods of "first-aid" treatment of these poisons are studied. Text-book: Wilcox's *Materia Medica and Therapeutics* (8th ed.). Second year. *Both terms, two hours.* Assistant Professor BEARD.

3. Materia Medica and Pharmacology. This course is devoted to the study of the origin and constitution of remedial measures, their preparations and doses, and, in particular, their physiological action and the indications for their rational use. Opportunity will be given to students to familiarize themselves with the more important crude drugs and their preparations. Instruction is given by means of lectures, recitations, and demonstrations. The lectures intended to accompany the work in Toxicology are given as a part of the course in Materia Medica. Professor MACNIDER.

Botany

1-2. General Botany: an introduction to the structure and classification of plants; lectures with laboratory work. *Both terms, three hours.* Professor COKER and Mr. TOTTEN.

Laboratory fee, $3.00 a term.

Chemistry

1-2. General Descriptive Chemistry: the elements are studied in a systematic manner; the laws governing their combination, and the compounds resulting, are considered with appropriate reference to their occurrence and relationships to medicine. The latter part of the course is taken up with organic chemistry. Texts: McPherson's and Henderson's *General Chemistry* and Remsen's *Organic Chemistry,* supplemented by lectures and quizzes. First year. *Both terms;* lectures, *three hours;* laboratory, *one hour.* Professor VENABLE and Messrs. HOKE and HALL.

Laboratory fee, $2.50 a term.

31-32. Qualitative Analysis: laboratory work with lectures. Practice is given in the qualitative analysis of known and unknown mixtures. Second year. *Both terms, two hours.* Professor WHEELER and Mr. CARTER.

Laboratory fee, $5.00 a term.

74. Toxicology: laboratory work: the chemical behavior of poisons and their separations are studied in the laboratory. Text: Autenrieth and Warren's *Detection of Poisons. April and May, three hours.* Professor Wheeler and Mr. Pickett.

Physics

Elementary Physics (Physics A). The fundamental facts of Physics are studied with some special reference to heat and electricity. Text-book, lectures, and laboratory work. First year. *Both terms, three hours.* Mr. Chrisler.

Certificates of Physics work done elsewhere than in a college of approved standing will not be accepted in lieu of this course.

OPTIONAL COURSES

The following courses are not required of students in Pharmacy, but may be elected profitably:

Botany

4. Introduction to Systematic Botany, with special attention to medical plants; laboratory and field work, with recitations. Prerequisite, Botany 1-2. *Spring term, three hours.* Professor Coker and Mr. Totten.

Laboratory fee, $3.00.

5-6. Physiology: a general course in plant physiology; lectures with laboratory and field experiments. Junior and Senior elective. *Both terms, three hours.* Professor Coker and Mr. Totten.

Laboratory fee, $3.00 a term.

Chemistry

11-12. Industrial Chemistry: lectures; the application of chemistry to the arts and industries. This course includes metallurgy, glass-making, pottery (*fall term*); food, clothing, building materials, explosives, photography, etc. (*spring term*). *Both terms, three hours.* Professor Herty.

41-42. Quantitative Analysis: laboratory work. This course is intended to give the student a thorough grounding in analytical methods and manipulations. *Three hours.* Professor Bell.

49-24. Quantitative Analysis: laboratory work. The student in this course is led further into the study and practice of analytical methods. The work may take any special direction desired by him, fitting him to be an agricultural chemist, iron chemist, manufacturing chemist, physician, druggist, or teacher of chemistry. The spring term is given to research. *Five hours.* Professor HERTY.

Geology

1-2. Determinative Mineralogy: lectures with laboratory work. Dana's *Text-book of Mineralogy. Both terms, two hours.* Mr. SMITH.

Zoology

1-2. Elements of Zoology. An introductory course giving an outline of the classification and structure of animals, fundamentals of histology, embryology, and physiology, with some consideration of biological theories; lectures with laboratory work. Text: Parker. *Both terms, three hours.* Professor WILSON and Mr. GEORGE.

Laboratory fee, $3.00 a term.

Students in Pharmacy have also the privilege of attending any of the regular academic courses.

COURSES LEADING TO THE DEGREE OF DOCTOR OF PHARMACY (P.D.)

Responding to the need for more advanced education in pharmacy, owing to the rapid progress made in the sciences and arts directly affecting the profession, and owing to the widely diversified knowledge now required to keep the pharmacist in touch with the best results of modern research, the University School of Pharmacy has added a third year to its curriculum, and grants upon the satisfactory completion of the course the degree of Doctor of Pharmacy (P. D.).

The subjects in the first and second years of this course coincide with those prescribed for the degree of Graduate in Pharmacy (Ph. G.). The third year's work is outlined below.

Every person upon whom the degree of Doctor of Pharmacy shall be conferred must have completed the courses of study as outlined. The course extends over three sessions of nine months each. The student must have completed the work of the three

sessions in the School of Pharmacy of this University or of the third session here after having satisfactorily completed two years work in some college of pharmacy recognized by the University. He must obtain satisfactory marking in attendance, making a general average of 70 per cent. in the various branches, and submit a satisfactory thesis. The thesis must be an original essay embodying the results of the student's personal research in some branch of pharmacy which he has prosecuted under the direction of the professor who assigned him the subject. The subject of such thesis must be announced on or before February 1 to the Dean of the Faculty. On May 2 the thesis shall be read before the Dean of the School, subject to criticism and correction. The corrected and approved thesis must be handed to the Registrar in typewritten form on or before May 15. It will be published at the discretion of the Dean of the School. The student must have had a practical experience of at least four years with some qualified pharmacist in a dispensing store. Satisfactory evidence on this point must be submitted to the Dean of the School, and a certificate deposited with the Registrar on or before May 15. Students who have not had the full four years experience will be permitted to stand examinations for graduation, but their diplomas will be withheld until they shall have satisfied this requirement. Of the three years of experience required for license by the State Board of Pharmacy, the work done in the pharmaceutical laboratory will count for only one.

THIRD YEAR

Pharmacy 3 (2)
Pharmacy 7 (5)
Physiology (3)
Bacteriology (9)
Chemistry 11-12 (3)
Chemistry 41-42 (3)
Chemistry 61-62 (3)
Chemistry 63-64 (2)

Pharmacy

3. Commercial Pharmacy. The need for commercial training in the practice of pharmacy is now thoroughly understood by every one. The School of Pharmacy has instituted a course in commercial pharmacy that is required of third-year students and

is an elective for first- and second-year students. The fall term is devoted to the preliminary problems concerned in starting a drug business and getting it established upon a firm basis. Advertising and salesmanship are discussed at length. A series of eight lectures on the laws regulating the practice of pharmacy, sale of poisons, insurance, negotiable instruments, partnerships, and corporations will be given the students of this course by the Dean and Professors of the University School of Law.

The spring term is devoted to business arithmetic and correspondence and bookkeeping. Text-book: O'Connor's *Commercial Pharmacy*. Third year. *Both terms, two hours.* Assistant Professor BEARD.

7. Manufacturing Pharmacy. This course for third-year students will consist of lectures, supplemented by laboratory work. The preparation of pharmaceutical products on a commercial scale will be given much consideration, as will the economics of manufacturing. The student will be acquainted with the sources, importation, and market prices of those agents which enter into remedies and pharmaceuticals. *Both terms, five hours.* Professor HOWELL.

Chemistry

11-12. Industrial Chemistry: the methods and economics of chemical industries, with special reference to those industries utilizing the products of the Southern States. Prerequisite, Chemistry 1-2. *Both terms, three hours.* Professor HERTY.

41-42. Quantitative Analysis: laboratory work, lectures, and stoichiometric exercises; a grounding in analytical methods. Junior and Senior elective. Prerequisite, Chemistry 1-2 and 31-32, or may be taken with 31-32. *Both terms, three hours.* Professor BELL.

Laboratory fee, $7.50 a term.

61-62. Organic Chemistry. Junior and Senior elective. Prerequisite, Chemistry 1-2 and 31-32. *Both terms, three hours.* Professor WHEELER.

Laboratory fee, $4.00 a term.

63-64. Organic Chemistry: laboratory work, including analysis of (*a*) pure organic compounds, (*b*) food products, (*c*) commercial

dyestuffs. Prerequisite, Chemistry 61-62. *Both terms, two hours.* Professor Wheeler.

Laboratory fee, $6.00 a term.

Bacteriology

Professor MacNider and Mr. Greenwood.

The student learns by practical experience the methods of cultivating, staining, and identifying the principal pathogenic bacteria. A few nonpathogenic and saprophytic forms are studied. The pathological significance of the various forms is explained by lectures, and the pathogenicity of some of the forms is determined by inoculation experiments performed by the class. At intervals during the course unknown organisms are given for identification. In addition to this, each student is required to isolate from the air, water, fecal matter, or pus two organisms and determine their species. The latter part of the course is devoted to the bacteriological study of milk and water. Text: Jordan. Reference: Park and McFarland.

PHARMACEUTICAL LABORATORY

Edward Vernon Howell, A. B., Ph. G., *Director and Professor of Pharmacy.*
John Grover Beard, Ph. G., *Assistant Professor of Pharmacy.*
Arthur Levi Fishel, Ph. G., *Assistant in the Laboratory.*
Jesse Eli Turlington, *Assistant in the Laboratory.*

Person Hall is occupied by the Department of Pharmacy. It contains ten rooms, each one of which is equipped with water, gas, and electricity. It is well supplied with large, high windows, and heated from the central heating plant.

The front part of the building contains a lecture room, a library, and a research laboratory. The lecture room has a seating capacity of seventy-five students. In this room are exhibited many rare and expensive chemicals, antitoxins and serums, standardized galenicals, and preparations made by various students. These exhibits serve to illustrate lectures. The library was inaugurated by the Class of 1897. In it are filed a large number of medical and pharmaceutical journals, and it contains a well-selected group of text, historical, and reference books. A research laboratory composes the remaining part of the front wing.

The body of the building is made up of three laboratories and an office. These laboratories are for the first, second, and third-year pharmacy students. Each student is supplied with an individual desk with lock, in which is stored all the equipment and apparatus necessary for the work. These desks are supplied with both water and gas. Suitable balances are distributed at convenient points throughout the laboratories.

The back wing of the building contains a prescription and gas room and a large lecture room for the courses in materia medica and botany.

OTHER LABORATORIES

The laboratories of Physics, Chemistry, Biology, and Medicine are open to students in Pharmacy. These laboratories are all equipped with the most approved apparatus for experimentation and illustration.

In addition to these advantages, students of this department enjoy the privileges of the University reading room, in which are filed all the leading newspapers and magazines, and free access to the University Library, which numbers 74,000 volumes and 18,000 pamphlets.

THE DEGREE OF PHARMACEUTICAL CHEMIST

To students who have not served an apprenticeship in a drug store, but who desire to become manufacturing pharmaceutical chemists, food and drug inspectors, naval pharmacists, or teachers, the University School of Pharmacy will, upon the satisfactory completion of the studies and conditions required, grant the degree of Pharmaceutical Chemist (Ph. C.). These studies and conditions are identical with those prescribed for the degree of Doctor of Pharmacy (P. D.), except that no practical experience in a drug store is necessary.

9. Pharmacy for Medical Students. This course in pharmacy will consist of two lectures, supplemented by two laboratory periods each week. Beginning with a consideration of the metric system as applied to writing prescriptions and preparing formulæ, the course will embrace, successively, medical arithmetic, prescription writing, official galenical and magistral preparations with their doses, cellulose and its compounds, carbohydrates, coal and wood tar products, resins, gums, esters, volatile oils, alkaloids, animal

drugs, and, lastly, solubility and incompatibility. The student will be required to make the preparations commonly prescribed, in order that he may be acquainted with their nature and composition. In addition, he must demonstrate the various forms of incompatibility liable to occur in prescriptions. Text-book: DeLorme's *Manual of Pharmacy for Physicians. First year. Spring term, six hours.* Assistant Professor Beard and Mr. Turlington.

ADMISSION OF WOMEN

The profession of pharmacy offers inducements to well-educated, energetic young women. The University Pharmacy School is open to women, who can enter under the same conditions and with the same privileges as men.

WILLIAM SIMPSON PHARMACEUTICAL SOCIETY

This society was inaugurated by the Class of 1913. It is named in honor of the late William Simpson, of Raleigh, a pioneer druggist and teacher.

The society holds weekly meetings. At these meetings papers are read by the various student members, and discussions of the papers follow. At stated intervals, debates are held on subjects of particular interest to pharmacists.

THE SUMMER SCHOOL

FACULTY AND OFFICERS
(1915)

Edward Kidder Graham, A. M., D. C. L., LL. D., President.
Nathan Wilson Walker, A. B., Director.
Zebulon Vance Judd, A. M., Assistant Director.
Thomas James Wilson, Jr., Ph. D., Registrar.
Oscar Leach, A. B., Secretary.
Charles Thomas Woollen, Business Manager.
Julius Algernon Warren, Treasurer.
George Pickard, Superintendent of Buildings and Grounds.
Louis Round Wilson, Ph. D., Librarian.
Eric A. Abernethy, M. D., Physician to the Summer School.
Mrs. Laura H. Benson, *Graduate Nurse,* In Charge of Infirmary.
Miss Carrie Moses, Assistant Secretary.

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*James Munsie Bell, Ph. D., *Professor of Physical Chemistry.*
William Stanly Bernard, A. M., *Associate Professor of Greek.*
Eugene Cunningham Branson, A. M., *Professor of Rural Economics and Sociology.*
Lautrec Cranmer Brogden, M. A., *State Supervisor of Rural Elementary Schools.*
Kent James Brown, Ph. D., *Associate Professor of German.*
Daniel Bunyan Bryan, Ph. D., *Professor of Education in Richmond College.*
Harry Woodburn Chase, Ph. D., *Professor of Psychology.*
Vivian Leroy Chrisler, A. M., *Instructor in Physics.*
Mrs. Jessie Lee Clark, *Principal Elizabethtown Public Schools.*
William Chambers Coker, Ph. D., *Professor of Botany.*
Robert Diggs Wimberly Connor, Ph. B., *Secretary of the North Carolina Historical Commission.*
William Morton Dey, Ph. D., *Professor of the Romance Languages and Literatures.*
Mrs. William Jasper Ferrell, *Professor of Piano and Music Pedagogy, Meredith College.*

* The names are given in alphabetical order.

Edwin Greenlaw, Ph. D., *Professor of English.*

Isaac Cebern Griffin, *Superintendent of the Marion, N. C., Graded Schools.*

Gustav Hagedorn, *Dean of the School of Music, Meredith College, Raleigh, N. C.*

Joseph Gregoire deRoulhac Hamilton, Ph. D., *Alumni Professor of History.*

James Holly Hanford, Ph. D., *Associate Professor of English.*

George Kenneth Grant Henry, A. M., Ph. D., *Assistant Professor of Latin.*

Edgar Allan Hodson, M. S., *Instructor in Agronomy in the North Carolina College of Agriculture and Mechanic Arts.*

George Howe, Ph. D., *Professor of the Latin Language and Literature.*

Robert Lane James, C. E., *Assistant Professor of Drawing.*

Miss Lily Nelson Jones, *Supervisor of Writing in the Durham City Schools.*

George McFarland McKie, A. M., *Associate Professor of Public Speaking.*

Charles Staples Mangum, A. B., M. D., *Professor of Anatomy.*

Miss Henriette Marie Masseling, *Story Specialist, Teacher in the Atlanta Public Schools; Story Teller in the Children's Department of the Carnegie Library and the Anne Wallace Branch Library of Atlanta.*

Miss Augusta N. Michaels, A. B., *Instructor in Drawing, Durham City High School.*

Miss Mildred Moses, *Teacher in the Morganton Graded School.*

Eugene Fred Parker, A. M., *Instructor in the Romance Languages.*

Miss Hattie Parrott, *Principal and Supervising Teacher of the Primary Department of the Kinston, N. C., City Schools.*

Andrew Henry Patterson, A. M., *Professor of Physics.*

Miss Elizabeth Pryor, B. S., *Teacher of Home Economics, Cary High School.*

Edwin Davis Pusey, A. M., *Superintendent of City Schools, Durham, N. C.*

Samuel Lloyd Sheep, M. E., *Superintendent of City Schools, Helena, Ark.*

John E. Smith, M. S., *Instructor in Geology.*

Marvin Hendrix Stacy, A. M., *Professor of Civil Engineering.*

HESTER C. STRUTHERS, *Assistant Principal of Chadbourn High School.*

MARY M. STUART, *Assistant Supervisor of Drawing, Norfolk, Va., City Schools.*

HENRY ROLAND TOTTEN, A. B., *Instructor in Botany.*

WALTER DALLAM TOY, M. A., *Professor of the Germanic Languages and Literatures.*

HENRY MCGILBERT WAGSTAFF, Ph. D., *Professor of History.*

ALVIN SAWYER WHEELER, Ph. D., *Professor of Organic Chemistry.*

LOUIS ROUND WILSON, Ph. D., *Professor of Library Administration.*

THOMAS JAMES WILSON, JR., Ph. D., *Associate Professor of Latin.*

SPECIAL LECTURERS

EDGAR J. BANKS, Ph. D., *Explorer, Orientalist; Field Director of Babylonian Expedition of University of Chicago to Bismya, 1903; formerly American Consul at Bagdad.*

ROBERT DIGGS WIMBERLY CONNOR, Ph. B., *Secretary of the North Carolina Historical Commission.*

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., *Alumni Professor of History in the University of North Carolina.*

JOSEPH HYDE PRATT, Ph. D., *Professor of Economic Geology in the University of North Carolina, and State Geologist.*

WILLIAM A. MCKEEVER, *Professor of Child-Welfare, Extension Division, University of Kansas; Author and Lecturer.*

GEORGE SOLOMON, *Rabbi Congregation Michve Israel, Savannah, Georgia.*

COURSES OF INSTRUCTION

The letter s, meaning summer, is prefixed to the numbers of courses to distinguish them from the numbers employed in the annual catalogue to designate the courses of the regular college year.

Courses numbered from s 1 to s 10, inclusive, count only for entrance or for normal credit, such credit being indicated by the letters E and N, respectively.

Courses counting for college or university credit begin their numbering in each department with s 11. The letter C indicates that a course is of college grade and may be counted towards the bachelor's degree; the abbreviation Grad. indicates that a course so marked is of graduate grade and may be counted towards the master's degree.

In some courses, it will be observed, the hours have not been scheduled. In such cases the hours will be arranged, wherever possible, to suit the convenience of the classes.

A daily schedule of recitations showing the hours and places of meeting will be given to each student on registering. Ask for this before you register.

Any changes in courses as announced will be published in bulletin form prior to the opening of the Summer School. Ask for a copy of this before you register.

English

s 1. Grammar and Composition. A study of the principles of grammar and composition. Text-book assignments, themes, lectures. Text-book: Robbins and Rowe's *Grammar and Composition.* Credit, 1 hour. N. *Five hours a week.* Mr. McKie.

s 2. Literature and Oral Composition in the Grades. It is the purpose of this course to indicate materials and methods of teaching literature in the grades and in developing a taste for good literature. Poetry and prose stories suited to each grade from the first to the eighth will be discussed, and each student will be required to prepare for and present at least one poem and one story. The principles of oral composition will be discussed and practice given in various forms. Credit, 1 hour. N. *Five hours a week.* Mr. McKie.

s 3. The Study of Literature. A consideration through class discussion and lectures of the meaning and methods of the study of literature. This course will be based on certain of the pieces of literature required for college entrance. Credit, 1 hour. E. N.

s 4. English Composition. Discussion of the principles of composition, and practice in composition. Text-book: Woolley's *Handbook of Composition*. Credit, 1 hour. N. *Five hours a week.* Mr. BERNARD.

s 11. The Teaching of English in the High School. A thorough study of some of the pieces of literature required for college entrance from the point of view of the teacher. The aim of the course is to widen the teacher's knowledge of each of the works studied and to furnish suggestions as to the most effective way of presenting them to high school students. Those taking the course will be expected to collaborate in the instruction by presenting reports of collateral study and reading and of their experience in dealing with the works under consideration. The problems of composition teaching in the high school will receive some attention. Credit, 1 or 2 hours. C. *Five hours a week.* Mr. GREENLAW.

s 12. Shakspere. A general consideration in lectures and discussions of Shakspere's complete works, with a minute study in class of two or three of the greater dramas. Ten or twelve plays will be assigned for reading. A thesis will be required in this course if it is counted toward a master's degree. Credit, 2 hours. C. or Grad. *Ten hours a week.* Mr. HANFORD.

s 13. The Romantic Poets. A study of the poetry of Wordsworth, Scott, Byron, Shelley, Keats, with a critical consideration of the meaning of the term "romantic" in literature and an account of the beginnings of the romantic movement. Neilson's *Essentials of Poetry* will be one of the text-books used. A thesis will be required in this course if it is counted toward a master's degree. Credit, 1 hour. C. or Grad. *Five hours a week.* Mr. HANFORD.

s 14. Studies in American Literature of the National Period. Lectures and assigned readings. Credit, 1 hour. C. or Grad. *Five hours a week.* Mr. GREENLAW.

History

s 1. The History of England. Lectures and assigned readings. Text-book: Walker's *Essentials of English History.* Credit, 1 hour. E. or N. *Five hours a week.* Mr. Wagstaff.

s 2. The History of the United States. Lectures and assigned readings. Text-book: Hart's *Essentials in American History.* Credit, 1 hour. E. or N. *Five hours a week.* Mr. Pusey.

s 3. General History. A general course dealing with the social and political aspects of Greek and Roman civilization. Contrasts and comparisons between Ancient Greek and Roman Governments and Modern Democracies will receive especial attention. Lectures, text-books, and readings. Text-book: Myer's *General History.* Credit, 1 hour. E. or N. *Five hours a week.* Mr. Pusey.

s 11. History of Greece. A course in Greek History from the beginning through the Macedonian period dealing with the social, political, and economic problems of Greek civilization. Lectures and assigned readings, with constant reference to original sources. Text-book: Bury's *History of Greece* (I Vol. edition). Credit, 1 hour. C. or Grad. *Five hours a week.* Mr. Wagstaff.

s 12. History of Rome. A course in Roman History from the beginning through the Republican period, dealing with the social, political, and economic problems of Roman civilization. Lectures and assigned readings, with constant reference to original sources. Text-book: How and Leigh's *History of Rome.* Credit, 1 hour. C. or Grad. *Five hours a week.* Mr. Wagstaff.

Note.—Courses s 11 and s 12 alternate. Course s 12 will not be given in 1915 unless applied for in advance by as many as six students.

s 13. The French Revolution. This course, after a thorough review of France in the closing years of the old régime, will be devoted to a study of the rise and progress of the revolutionary movement. Lectures, text-book, and reading. Junior and Senior elective. Credit, 1 hour. C. *Five hours a week.* Mr. Hamilton.

s 14. Secession and Civil War. A discussion of the causes of secession and the political and social issues therein involved, fol-

lowed by a detailed study of the social, political, economic, and constitutional problems of the period from 1861 to 1865. Lectures and reading. Graduate course open also to approved Seniors. Credit, 1 hour. C. or Grad. *Five hours a week.* Mr. HAMILTON.

s 15. The Reconstruction of the Union. A course in United States History from 1865 to 1877, dealing with the problems and process of Reconstruction and with the social, political, and economic conditions of the period. Lectures and reading. Graduate course open also to approved Seniors. Credit, 1 hour. C. or Grad. *Five hours a week.* Mr. HAMILTON.

Not offered in 1915.

s 16. Modern Europe. A general course covering European history from the Congress of Vienna (1815) to the present time. Text-book: Hazen's *Europe Since 1815.* Credit, 1 hour. C. or Grad. *Five hours a week.* Mr. WAGSTAFF.

Greek

s 1. Elementary Greek. A course for teachers and those beginning the study of Greek. Special emphasis upon methods of teaching. Text-books: Moss's *First Greek Reader* and Babbitt's *Greek Grammar.* Credit, 1 hour. E. or N. *Five hours a week.* Mr. BERNARD.

s 2. Xenophon. Xenophon's Anabasis I-IV. Translation and Syntax. Special attention to sight-reading. Text-books: Goodwin and White's *Xenophon's Anabasis* and Babbitt's *Greek Grammar.* Credit, 1 hour. E. or N. *Five hours a week.* Mr. BERNARD.

NOTE.—Courses s 1 and s 2 will not be given unless applied for in advance by as many as six students.

s 11. Greek Literature. Lectures on the origin and development of Greek Literature, with a careful study of selected poems and assigned readings. Text-book: Wright's *Masterpieces of Greek Literature.* No knowledge of Greek is required for this course. Credit, 1 hour. C. *Five hours a week.* Mr. BERNARD.

NOTE.—See also History s 11.

Latin

s 1. Elementary Course. Pronunciation, inflection, syntax of nouns and verbs; special study of the subjunctive, indirect discourse, relative and conditional sentences. Text-book: Bennett's *Latin Grammar.* Credit, 1 hour. N. *Five hours a week.* Mr. Henry.

s 2. Latin Composition. Preparation of Latin exercises and discussions of problems of vocabulary, word order, and syntax. Credit, 1 hour. N. *Three hours a week.* Mr. Henry.

s 3. Vergil. A course designed primarily for candidates for admission to college; the first six books of the Aeneid; translation, syntax, meter. Text-book: Any standard text of the Aeneid. Credit, 1 hour. E. or N. *Five hours a week.* Mr. Henry.

s 11. The Teaching of Latin in the High School. A course for teachers, based on the authors usually taught in the High School. The topics to be discussed will include: assignment of lessons, grammar, translation, vocabulary, use of outside material in the interpretation of the text, methods of recitation, etc.; lectures; assigned readings; reports and discussions. Text-books: Any standard editions of Cæsar, Cicero, and Vergil. Credit, 1 hour. C. *Five hours a week.* Mr. Howe.

s 12. Horace. Reading of selected odes, with some account of the life and times of the author. Text-book: Any complete edition of the *Odes.* Credit, 1 hour. C. *Five hours a week.* Mr. Wilson.

s 13. Pliny. Reading of selected letters; a study of the epistle as a literary form. Outside readings will be assigned on the literature of the first century, with special emphasis on the work of Pliny's contemporaries. Text-book: Westcott's *Selections from Pliny's Letters.* Credit, 1 hour. C. or Grad. *Five hours a week.*

Not offered in 1915.

s 14. Vergil. An advanced course in the life and works of Vergil. Outside readings will be assigned on the epic and the pastoral in Latin poetry. Credit, 1 hour. C. or Grad. *Five hours a week.* Mr. Howe.

s 15. Roman Elegiac Poets. A rapid reading of selected elegies of Catullus, Tibullus, Propertius, and Ovid; a study of the lives of the elegists; the history of Greek and Roman elegy. Credit, 1 hour. C. or Grad. *Five hours a week.* Mr. HOWE.

French

s 1. Elementary Course. Direct method of instruction. Special attention given to pronunciation. Walter and Ballard: *Beginners' French* (Chas. Scribner's Sons), and David: *Chez Nous* (Henry Holt & Co.), or Talbot: *Le Français et sa Patrie* (Benj. H. Sanborn & Co.). Credit, 1 hour. E. or N. *Five hours a week.* Mr. PARKER.

s 2. Advanced Course. Review of the principles of French grammar, practical composition, and reading of modern French literature. Fraser and Squair: *Shorter French Course* (D. C. Heath & Co.); Comfort: *Exercises in French Prose Composition* (D. C. Heath & Co.); and selected texts. Credit, 1 hour. E. or N. *Five hours a week.* Mr. PARKER.

s 11. French Literature. A study of French literature in the Nineteenth Century, with especial reference to Victor Hugo and Romanticism. Lectures, class reading, reports, and much collateral reading. Students desiring to take this course must consult with the instructor and satisfy him as to their fitness to pursue the work. Credit, 1 hour. C. *Five hours a week.* Mr. DEY.

German

s 1. Elementary Course. This course is intended for those who have no previous acquaintance with the language and for those who are interested in the new methods of teaching beginners. German will be spoken as the medium of instruction. The inflections and the common laws of syntax will be learned practically. The class will make written summaries in German and translate simple German prose. Grammar: Vos' *Essentials of German,* 4th ed. (Henry Holt & Co.). Credit, 1 hour. E. or N. *Five hours a week.* Mr. TOY.

NOTE.—This course corresponds in part to the fall term of German A as scheduled in the general catalogue. When successfully completed it will be accepted as part of the college entrance requirement in German.

s 2. Elementary Course. Practical exercises in grammar and translation of German prose. Oral methods will be used as far as possible, in continuation of the Course s 1; Text-books: Vos' *Essentials of German,* 4th ed. (Henry Holt & Co.); Holzwarth's *Gruss aus Deutschland* (D. C. Heath & Co.). Credit, 1 hour. E. or N. *Five hours a week.* Mr. Brown.

Note.—This course corresponds in part to the spring term of German A as scheduled in the general catalogue. When successfully completed it will be accepted as part of the college entrance requirement in German. It will not be given unless applied for in advance by as many as six students.

s 11. Advanced Course. This course presupposes at least one year's successful study of German. There will be a review of important points of grammar, but attention will be directed chiefly to wide reading. Colloquial exercises will be a distinct feature of the course. Text-books: Vos' *Essentials of German,* 4th ed. (Henry Holt & Co.); Storm's *Immensee* (Ginn & Co.); Heyse's *L'Arrabbiata* (D. C. Heath & Co.). Credit, 1 hour. C. *Five hours a week.* Mr. Brown.

Note.—This course corresponds in part to the fall term of German 1-2 as scheduled in the general catalogue. When successfully completed it will be accepted for credit as part of the fall term of German 1-2. It will not be given unless applied for in advance by as many as six students.

s 12. Advanced Course. Continuation of the Course s 11. There will be a review of important points of grammar not included in the previous course s 11, and wide reading of German prose. Text-books: Vos' *Essentials of German,* 4th ed. (Henry Holt & Co.); Freytag's *Die Journalisten* (D. C. Heath & Co.); Gerstaecker's *Germelshausen.* Credit, 1 hour. C. *Five hours a week.* Mr. Toy.

Note.—This course corresponds in part to the spring term of German 1-2 as scheduled in the general catalogue. When successfully completed it will be accepted for credit as part of the Spring term of German 1-2.

s 13. German Literature. This course is an introduction to the classical literature of Germany in the last quarter of the seven-

teenth century. A brief outline of the development of German literature is given in lectures. The class will read and interpret Lessing's *Minna von Barnhelm* and Schiller's *Jungfrau von Orleans*. Theses. This course is given alternately with Course s 14. Credit, 1 hour. C. or Grad. *Five hours a week.*

s 14. German Literature. Continuation of Course s 13. Reading and interpretation of Schiller's *Wilhelm Tell* and Goethe's *Egmont* or *Iphigenie auf Tauris*. Theses. This course is given alternately with Course s 13. Credit, 1 hour. C. or Grad. *Five hours a week.*

Not offered in 1916.

Spanish

NOTE.—The instruction in Spanish and Portuguese is offered through the coöperation of the Carnegie Endowment for International Peace.

s 1. Elementary Course. Grammar, with frequent composition; oral and written exercises; translation and reading at sight; special attention given to pronunciation. Wagner: *Spanish Grammar* (The Ann Arbor Press, Ann Arbor, Mich.); and other texts. Credit, 1 hour. E. or N. *Five hours a week.* Mr. DEY.

s 2. Advanced Course. Reading of representative writers of the nineteenth century; review of grammar; composition based on selected texts, and practice in business correspondence. Umphrey: *Spanish Prose Composition* (American Book Co.); and other texts. Credit, 1 hour. E. or N. *Five hours a week.* Mr. DEY.

Portuguese

NOTE.—The department is prepared to offer courses in Portuguese, in case there is sufficient demand for such courses. Application for courses in Portuguese should be made by June 5.

Mathematics

s 1. Arithmetic. Lectures and assigned work, including the fundamental operations, fractions, percentage, interest, ratio, and proportion, mensuration, etc. Text-book: Milne's *Progressive Arithmetic, Book III.* Credit, 1 hour. N. *Five hours a week.* Mr. SHEEP.

s 2. Secondary Algebra. Lectures and assigned work, including factoring, simultaneous equations, exponents, involution and evolution, quadratic equations, the binomial theorem, etc. Text-book: Milne's *Standard Algebra.* Credit, 1 hour. E. or N. *Five hours a week.* Mr. Sheep.

s 3. Plane Geometry. Lectures and recitations. Text-book: Wentworth and Smith's *Plane Geometry.* Credit, 1 hour. E. or N. *Five hours a week.* Mr. Stacy.

s 4. Solid Geometry. Lectures and recitations. Special attention given to the solution of original exercises. Text-book: Wells's *Essentials of Plane and Solid Geometry.* Credit, 1 hour. E. or N. *Five hours a week.* Mr. James.

s 11 and s 12. Algebra. From Quadratics through the theory of equations. (Fine's *College Algebra.*) These two courses constitute the fall term of Mathematics 1, as outlined in the general catalogue, and cover two summer terms. No University credit will be given until both terms are completed. Credit, 2 hours. C. *Five hours a week.* Mr. Stacy.

s 13 and s 14. Plane and Spherical Trigonometry and Logarithms. Rothrock's *Plane and Spherical Trigonometry.* These two courses constitute the equivalent of the spring term of Mathematics 1, as outlined in the general catalogue, and cover two summer terms. No University credit will be given until both terms are completed. Credit, 2 hours. C. *Five hours a week.* Mr. Stacy.

Physics

s 1. Elementary Course. Mechanics of solids, liquids and gases; sound. Five recitations and five laboratory periods a week. In this and the following courses Millikan and Gale's *First Course in Physics* is used as a text-book. This course is the equivalent of the fall term of Physics A as scheduled in the general catalogue. Credit 1½ hours. E. or N. *Ten hours a week.* Mr. Patterson and Mr. Chrisler.

s 2. Elementary Course. Magnetism and electricity; heat and light. Five recitations and five laboratory periods per week.

This course is the equivalent of the spring term of Physics A as scheduled in the general catalogue. Credit, 1½ hours. E. or N. *Ten hours a week.* Mr. PATTERSON and Mr. CHRISLER.

NOTE.—These two courses may be taken together, and when completed satisfactorily will count as University entrance requirement in Physics. A fee of $1.00 will be charged in each course if laboratory work is taken.

s 11. Advanced Course. Mechanics of solids, liquids and gases, as presented in Carhart's *College Physics.* Five lectures and five laboratory periods a week. This course is the equivalent of the fall term of Physics 1 as scheduled in the general catalogue. Credit, 1½ hours. C. *Ten hours a week.* Mr. PATTERSON and Mr. CHRISLER.

s 12. Advanced Course. Sound, light, electricity and magnetism. A continuation of Course s 11. Five lectures and five laboratory periods a week. This course is the equivalent of the spring term of Physics 1 as scheduled in the general catalogue. Credit, 1½ hours. C. *Ten hours a week.* Mr. PATTERSON and Mr. CHRISLER.

NOTE.—A fee of $1.50 will be charged in each course if laboratory work is taken.

Chemistry

s 11. General Descriptive Chemistry. A study of the non-metallic elements and their compounds. This course is the equivalent of Chemistry 1 of the general catalogue. Daily lectures. Laboratory work on alternate days, 2 hours. Weekly quiz. Credit, 1½ hours. C. *Ten hours a week.* Mr. BELL.

Laboratory fee, $2.50.

s 12. General Descriptive Chemistry. A study of the metallic elements and their compounds and an introduction to the study of Organic Chemistry. This course is the equivalent of Chemistry 2 of the general catalogue. Daily lectures. Laboratory work on alternate days, 2 hours. Weekly quiz. Credit, 1½ hours. C. *Ten hours a week.* Mr. WHEELER.

Laboratory fee, $2.50.

s 13. Qualitative Analysis. Practice is given in the qualitative analysis of known and unknown mixtures. This course is the equivalent of Chemistry 33 of the general catalogue. Daily laboratory work with lectures. Credit for premedical, B. S. II and B. S. IV courses. Credit, 1½ hours. C. *Ten hours a week.* Mr. Wheeler.

Laboratory fee, $7.50.

s 14. Quantitative Analysis. A brief course in gravimetric methods followed by a more extended course in volumetric methods. This course is the equivalent of Chemistry 44 of the general catalogue. Daily laboratory work with lectures. Credit for premedical, B. S. II and B. S. IV courses. Credit, 1 hour. C. *Ten hours a week.* Mr. Bell.

Laboratory fee, $5.00.

Botany

s 11. Field and Economic Botany. It will be the object of this course to give an introduction to the trees, commoner flowers and weeds of Chapel Hill and incidentally to furnish a drill in the use of manuals so that the student may be able to determine later the names of plants of his own neighborhood. Attention will be given also to economic and ornamental plants as opportunity offers. The arboretum and Glen Burnie Farm will offer exceptional opportunities for this work. The class will meet out of doors whenever the weather permits. There will be a few hours of laboratory work with the microscope and hand lens. Text-book: Gray's *Manual of Botany* (7th edition). Two hours daily. Credit, 1½ hours. C. *Ten hours a week.* Mr. Coker and Mr. Totten.

Agriculture

s 1. Elementary Agriculture. (For those teaching in any grade below the High School.) This course will include the elementary facts in Nature Study, School Gardening, and Agriculture necessary to continue the work successfully in the High School grades. Credit, 1 hour. N. *Five hours a week.* Mr. Hodson.

s 2. Secondary Agriculture. (For those teaching the High School grades.) In this course several lectures will be given on each of the following subjects: Plants, Soils, Crops, Fruits and

Vegetables, Animal Husbandry, Insects and Plant Diseases, and Farm Management. Credit, 1 hour. N. *Five hours a week.* Mr. HODSON.

Geology and Geography

s 1. General Geography. Home geography and the geography of North Carolina; general principles and their application. Subject-matter in the grades, methods of teaching, supplementary work. Credit, 1 hour. N. *Five hours a week.* Mr. SMITH.

s 2. High School Geography. Natural provinces, topographic forms, geographic control; historical, commercial, industrial, agricultural, and economic geography; laboratory equipment, field and laboratory methods of instruction. *Five hours a week.* Mr. SMITH.

NOTE.—The classes in geography will make field excursions and industrial trips to mills and factories. Course s 2 may not be given in 1915, if less than six students enroll for it.

s 11. Elementary Geology. Materials of the earth and the agencies affecting them; processes and their results as a key to the interpretation of the earth's history, with special reference to that of North Carolina. The origin, classification, conservation, and uses of the economic minerals, rocks, soils, etc., of the State and their importance to man. Field and laboratory work. Text-book: *The Elements of Geology,* Blackwelder and Barrows. Credit, 1 hour. C. *Five hours a week.*

Not offered in 1915.

s 12. Elementary Mineralogy. Origin, conservation, and uses of the common economic minerals and rocks; their properties and identification. Field and laboratory work. Credit, 1½ hours. C. *Ten hours a week.* Mr. SMITH.

s 13. Geology. Advanced Geological Field Work and Special Research. A study of the etched peneplain of middle North Carolina in its relation to the economic and historical geography of the State, with special reference to problems of transportation from colonial days to the present. The course covers five weeks, of which one is spent at Chapel Hill with daily meetings, the remaining four being devoted to field study. This course was arranged in

1905 in coöperation with several universities in different parts of the United States, all of them giving credit for the work done in it. One term, three hours, or an hour and a half for a whole year. Credit, 1½ hours. C. or Grad. *Ten hours a week.* Mr. Cobb.

Students contemplating taking this course should address Professor Collier Cobb, Chapel Hill, N. C., before June 6.

Library Science

s 11. Library Organization and Methods. An elementary course in the organization and management of school, college, and public libraries. (*a*) General lectures on the place of the library in the school and community; children's reading; book selection and buying; reference work with pupils in the high school and grades; declaiming, essay writing, and debating. (*b*) Technical lectures on the care of books; accession records; classification and book numbers; cataloguing, charging systems, binding and mending books; care of periodicals and pamphlets. (*c*) Practice in the University Library. (*d*) Assigned readings. Credit, 1 hour. N. or C. *Five hours a week.* Mr. Wilson.

s 12. Bibliography. An advanced course treating of the use of dictionary card catalogues, indexes, dictionaries, encyclopedias, atlases, gazeteers, almanacs, year books, Government documents and document indexes, publishers' catalogues, and general bibliography. Extended practice in the finding of material for orations, theses, debates, and special studies will be required, together with practice at the reference desk in the University Library. An extensive bibliography on some subject to be assigned will also be required upon the completion of the course. Lectures, assigned readings, textbooks. Credit, 1 hour. C. or Grad. *Five hours a week.* Mr. Wilson.

Public School Music

s 1. Public School Music. Sight-singing, rhythm, sense-training, observation, school music and mechanics. This course is intended primarily for the grade teacher in the public schools, and will be extended in any direction to suit the needs of the class. Credit, 1 hour. N. *Five hours a week.* Mr. Hagedorn.

s 2. Public School Music. Sight-singing, chromatics, dictation, rhythm, two- and three-part singing, suggestions for chorus con-

ducting, the selection of material, etc. Credit, 1 hour. N. *Five hours a week.* Mr. HAGEDORN.

s 3. Public School Music. A course intended for those wishing to qualify themselves as supervisors. It is open only to those who have completed courses 1 and 2 or their equivalent. This course will deal with especial tasks of the supervisor, his relation to the grade teacher, the mechanics of the music lesson, the formation of the choruses, chorus conducting, public performances, and other problems. Credit, 1 hour. N. *Three hours a week.* Mr. HAGEDORN.

Normal Course in Piano Teaching

Mrs. FERRELL.

The Normal Course in Piano Teaching will consist of a series of daily lectures dealing with the following subjects: class work and its importance, organization of classes; the presentation of the staff to beginners, notation, rhythm, ear-training, hand-training.

The use of stories in teaching musical history and biography.

Keyboard harmony, teaching of scales, major and minor, diminished and augmented triads, dominant seventh, and diminished seventh chords, writing melodies, transpositions.

Selection of material for the early grades.

Technic plays an important part in the training of beginners, and this subject receives especial attention.

Muscle exercises, table drills, and early piano technic will be demonstrated during this course of lectures.

The Choral Concert

The Summer School Chorus is one of the features of the Summer School and will give its Annual Concert under the direction of Mr. Hagedorn.

Those wishing to become members of this chorus should apply to Mr. Hagedorn at once.

The Chorus, with the assistance of special soloists, will give a performance of Flotow's Opera "Martha" in concert form Wednesday, July 14.

Drawing

The classes will be under three divisions:

s 1. Primary Division. Credit, 1 hour. N. *Five hours a week.* Miss Michaels and Miss Stuart.

For teachers of first, second, and third grades.

s 2. Grammar Division. Credit, 1 hour. N. *Five hours a week.* Miss Michaels and Miss Stuart.

For teachers of fourth, fifth, sixth, and seventh grades.

s 3. Advanced Division. Credit, 1 hour. N. *Five hours a week.* Miss Michaels and Miss Stuart.

For former students who have attained the required degree of proficiency and for supervisors of drawing.

These courses are planned with a view to giving teachers instruction that will give the knowledge necessary to the teaching of school arts in rural and city schools. Plans by which the acquired knowledge can be adapted to the needs of different grades, and methods of presenting lessons in each grade, will be carefully discussed and taught. The State-adopted course in drawing will be the basis of instruction, though the work will not be confined wholly to this.

Writing

s 1. Handwriting in the Public Schools. A course for public school teachers. The *Berry Writing Books,* adopted for use in the public schools of North Carolina, will be used in the main, though not exclusively. Two sections. Each *three hours a week.* Credit, 1 hour. N. Miss Jones.

s 2. Free Arm Movement. In this course the free arm movement will be emphasized; lectures and drills. Two sections. Each *three hours a week.* Credit, 1 hour. N. Miss Jones.

Note.—Free arm movement will be the basis of all the work in writing. The courses offered are planned to make better teachers of writing, hence there will be two definite purposes in view: to improve the handwriting of those taking the courses and to study best methods to be used in teaching children to write.

The courses offered will be helpful to teachers, no matter what system they have to teach, as the instruction will be along broad lines, and principles rather than systems will be most emphasized.

In one class (1) the State-adopted copy books will be used, and methods will be emphasized. In another class (2) the prominence will be given to acquiring a free arm movement writing.

Model lessons in primary grades will be given, with and without copy books; blackboard writing; correlation of writing with other studies.

Physiology and Hygiene

s 1. Public Health. (Open to all.) A discussion of the problems of public health and the relation of the schools to the work of the public health officer. Ways and means of securing the coöperation of the schools in the public health work of the State. Public lectures will be delivered by Dr. C. W. Stiles and Dr. W. S. Rankin. Credit, ½ hour. N. *Three hours a week.* Dr. MANGUM.

s 2. Elementary Physiology. (Open to teachers of physiology.) The purpose of this course will be to develop the best method of presenting the subject rather than to teach the subject itself. Text: those used in the schools. Credit, ½ hour. N. *Two hours a week.* Dr. MANGUM.

s 11. Embryology and Anatomy. (Open to teachers and to students of Natural Science.) A laboratory study of the development of the frog and the chick and the dissection of a mammal. The ultimate purpose of the course is to afford a proper foundation for the rational study and the teaching of physiology. Credit, 1½ hours. *Ten hours a week.* Dr. MANGUM.

A fee of $2 will be charged to cover the cost of material.

s 12. Physiology and Histology. (Open to those who have successfully completed course 1, or its equivalent.) The course will comprise lectures on human physiology and a laboratory study of microscopic anatomy. Credit, 1½ hours. *Ten hours a week.* Dr. MANGUM.

To be offered in 1916.

Home Economics

Course primarily for Rural School Teachers.

s 1. Cooking. Study of the general food principles and their place in the diet. The effect of digestion on food principles, correlation of cooking with other studies in the rural school curriculum, working out the noon-day lunch as a time for a cooking lesson in the rural school. Credit, 1 hour. N. *Five hours a week.* Miss Pryor.

s 2. Sewing. The elementary principles of sewing carried out in problems to be worked out for grades from the fifth to the tenth inclusive; study of textile fibers, suitable fabrics, and alteration of patterns. Credit, 1 hour. N. *Five hours a week.* Miss Pryor.

Rural Economics and Sociology

s 11. Rural Economics and Sociology. A series of studies in country-life problems and social agencies in North Carolina. These are direct studies, county by county, of: I. Country wealth, upon which rural progress depends for support, (1) accumulated wealth, total and per capita; (2) wealth production, in crops, live stock, and animal products; (3) the yearly economic surplus. II. Farm wealth retention, (1) typical farm systems, (2) farm tenancy, (3) our landless multitudes, (4) rural illiteracy, and (5) the needed country school. III. Rural health and sanitation, (1) the whole-time health officer, (2) medical inspection of school and school children. IV. Improved public highways and the country school. V. The rural church and Sunday-school, their status and needs. VI. The country home, its advantages and necessities. Credit, 1 hour. C. or Grad. *Five hours a week.* Mr. Branson.

s 12. Laboratory Course in Home County Studies. Following the course outlined in Bulletin No. 9 of the University Extension series, concentrating especially upon the particular local country-life problem or agency chosen by the student. Credit, 1 hour. C. or Grad. *Five hours a week.* Mr. Branson.

Education

s 1. Primary Instruction. A practical study of the subjects of the primary grades (1, 2, and 3) from the standpoint of content

and of principles of methods. Lectures and discussions based upon assigned readings, upon observation of lessons, and upon plans prepared by students. Credit, 1 hour. N. *Five hours a week.* Miss PARROTT.

s 2. Reading for the Primary Grades. The subject-matter and methods of teaching reading in the first three grades will be studied with reference to the child's interests, activities, and social needs. Credit, 1 hour. N. *Five hours a week.* Miss PARROTT.

s 3. Grammar School Methods. Lectures and assigned readings covering the work of the intermediate and grammar grades. Work based upon the State-adopted course of study; special attention given to English, geography, history, and arithmetic. Lectures and discussions covering some of the problems of schoolroom management, promotions, the recitations, etc. Observation in the Practice School; reports and discussions. Chartes's *Teaching and Common School Branches* will form the basis of this course. Credit, 1 hour. N. *Five hours a week.* Mr. GRIFFIN.

s 4. Child Study in the Grammar Grades. The course embraces a discussion of each type of pupil found in the grammar grades, the defining of the problem "what to do with each type found," methods of testing for mental ability, methods of testing for ability to apply things learned, a means of preventing repeating, individual promotion, the value of continuous individual promotion, and the value of continuous individual records. Credit, 1 hour. N. *Five hours a week.* Mr. PUSEY.

s 5. Plays and Games. The course embraces a study of children's representative plays, folk games, gymnastic and ball games, and simple dance forms. It includes the selection of games for school and playground and the adaptation of schoolroom gymnastics. Classification of games according to age and grade of child. It includes work in both theory and practice. Credit, 1 hour. N. *Five hours a week.* Miss MASSELING.

s 6. Story Telling. Lectures on the art of story telling, origin and history of story telling, use of the story in education. Selection and adaptation of stories and correlation with regular work of classroom. A study of fairy and folk tales, mythological tales,

nature stories, Bible stories, the great national epics with their uses, and the arranging of programs of miscellaneous stories. The educative value of dramatizing the story in the schoolroom. Suggestive lists of stories. Practice in adapting and telling stories. Observation and work in the practice school under supervision. Credit, 1 hour. N. *Five hours a week.* Miss Masseling.

Classes will be divided into two sections:

I. Primary Section. For teachers of first, second, third, and fourth grades. *Five hours a week.*

II. Grammar Section. For teachers of fourth, fifth, sixth, and seventh grades. *Five hours a week.*

Note.—An informal gathering for the purpose of playing games and telling stories will be held under the Davie Poplar on Mondays and Fridays. These meetings are open to the members of the class and to all who care to attend, whether members of the class or not.

s 7. Class Management. A course dealing with the problems of classroom management. The topics discussed will be: routine, discipline; hygiene of the classroom; decoration; arrangement of the daily program; attention. Lectures, readings, discussions. Credit, 1 hour. N. *Five hours a week.* Mr. Griffin.

s 8. General Administration. A discussion of the knowledge necessary for the efficient administration of a school system, together with a detailed study and explanation of the ways and means by which such knowledge is made available to school officers. Such problems as the distribution of expenditures; handling supplies; rating of teachers; pupil standing, etc., will be treated. Lectures, statistical studies. Credit, 1 hour. N. *Five hours a week.*

s 9. Constructive School Supervision. The aims of this course are: (1) to train the student in the recognition of the basic principles of teaching as exemplified in the teaching of various subjects in the course of study, and (2) in the construction from observations made of a scientific method of teaching these subjects; (3) to discover and to formulate standards of work by which we judge the value of our teaching in its effect upon the child. Assigned readings bearing upon this work will be required of members of

the class. Practice in the application of principles in a Practice School. Lectures, readings, reports, and round-table conferences. For superintendents, supervisors, principals, and grade teachers. Credit, 1 hour. N. *Five hours a week.* Mr. BROGDEN and Mr. JUDD.

s 11. High School Administration. A study of the rise of the high school; its legitimate place in our school system; its size as affecting its organization and management; evaluation of the program of studies; necessary equipment; the teaching force; characteristics of the high school pupil. Brown's *American High School;* lectures, parallel readings. Credit, 1 hour. C. *Five hours a week.* Mr. BRYAN.

s 12. High School Methods. A study of the nature of the adolescent child and of the material or subject-matter presented in high school programs of study. The discussions will center around the methods for so presenting the material as to develop most completely the adolescent mind. Lectures, readings, reports. Credit, 1 hour. C. *Five hours a week.* Mr. BRYAN.

s 13. Introduction to Educational Psychology. This course will deal with the psychological principles which underlie the learning process. It corresponds to Education 41-42 of the winter session, and is open to students of Sophomore, Junior, and Senior grade. Lectures and parallel readings. Credit, 2 hours. C. *Ten hours a week.* Mr. CHASE.

s 14. Administration. A seminar course devoted to a detailed study of administrative and supervisory problems arising in a school or system of schools. Discussions, reports, thesis. Graduate course open only to college graduates. Prerequisite, Education s 11 and s 12, or equivalent. Credit, 2 hours. Grad. *Five hours a week.* Mr. WILLIAMS.

NOTE.—One-half of this course will be given in 1915 and the remainder in 1916. No credit will be allowed until both parts have been completed. This course can be taken only after consultation with the Committee on Advanced Standing. The hours will be arranged after conference with the instructor.

s 15. Seminar in Educational Psychology. This course corresponds to Education 45-46 in the regular session, and is open only to graduate students. The fall term of the course will be given in the summer of 1915, and the spring term in the summer of 1916. The course will not be credited until both summers' work has been completed. The nature of the topics considered will vary somewhat in accordance with the interests of the class. Special subjects requiring individual investigation will be assigned to the members of the seminar. The course presupposes some psychological training, and should be elected only after conference with the instructor. Hours arranged after conference with the instructor. Credit, 2 hours. Grad. *Five hours a week.* Mr. Chase.

THE BUREAU OF EXTENSION

COMMITTEE

Louis Round Wilson, Ph. D., Director.
Edgar Ralph Rankin, A. B., Assistant Director.
Nathan Wilson Walker, A. B.
Marvin Hendrix Stacy, A. M.
*Andrew Henry Patterson, A. M.
Charles Lee Raper, Ph. D.
Harry Woodburn Chase, Ph. D.
Marcus Cicero Stephens Noble.
Collier Cobb, A. M.
Eugene Cunningham Branson, A. M.
Lester Alonzo Williams, A. M., Pd. D.

The Bureau of Extension offers to the people of the State:

I. GENERAL INFORMATION

Concerning books, readings, essays, study outlines, and subjects of general interest. Literature will be loaned from the Library upon the payment of transportation charges each way.

II. INSTRUCTION BY LECTURES

Lectures of a popular or technical nature and addresses for commencement or other special occasions will be furnished any community which will pay the traveling expenses of the lecturer. The subjects offered fall into three groups, their nature being indicated by the letters A., B., C., as follows:

Lectures marked A. are popular and of general interest.

Lectures marked B. are specific or technical for study clubs, institutes, farmers' meetings, etc.

Lectures marked C. are lectures or addresses for special meetings, such as commencement, patriotic, and dedicatory occasions, Memorial Day exercises, conventions, etc.

Lectures suitable for both general and special occasions are marked with two letters. In some instances the titles of commencement addresses are not given.

*Absent on leave, 1915-1916.

John Grover Beard, Ph. G., *Assistant Professor of Pharmacy.*

A. 1. "Patent Medicines"—Their Uses and Abuses.
B. 1. The Collection and Cultivation of Crude Drugs in North Carolina.

William Stanly Bernard, A. M., *Associate Professor of Greek.*

A. or B. 1. History of Architecture. (One or more lectures.)
A. or B. 2. History of Sculpture. (One or more lectures.)
B. 1. What is Art?
B. 2. Architecture and Civilization.

James Manning Booker, Ph. D., *Associate Professor of English.*

A. 1. The Fiction-making Mind. (Illustrative readings.)
A. 2. The Irish Plays. (Illustrative readings.)
A. 3. The Dramatic Monologue. (Illustrations from Tennyson and Browning.)
A. 4. Plattsburg: The Military Camp as a Part of the Movement for National Defense.

Eugene Cunningham Branson, A. M., *Professor of Rural Economics and Sociology.*

A. 1. Robert E. Lee, Gentleman.
A. 2. Know-Your-Home-State Clubs.
A. 3. Come, Let Us Live with Our Children.
A. 4. Farm Homes. (Illustrated.)
A. 5. Farm Home Grounds: Their Planting and Care. (Illustrated.)
B. 1. Home-County Study Clubs.
B. 2. Community Nest-Eggs.

James Bell Bullitt, A. M., M. D., *Professor of Pathology and Histology.*

A. or B. 1. School Sanitation and Medical Inspection.
A. or B. 2. Oral Hygiene.
A. or B. 3. Bubonic Plague: Its Menace to this State.

Harry Woodburn Chase, Ph. D., *Professor of the Philosophy of Education.*

A. 1. The New Education.

A. 2. The Making of the Individual.
A. 3. Heredity, Environment, and Education.
B. 1. The Growth of Educational Standards.
B. 2. The School Survey and What it Means.
B. 3. The Backward Defective Pupil.
C. Commencement Addresses.

COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*

A. 1. Where the Wind Does the Work. (An account of the sand-reefs along the North Carolina Coast. Illustrated.)
A. 2. Lessons from the Landes of Gascony. (A region of swamp lands and dunes reclaimed by drainage and tree-planting. Illustrated.)
A. 3. Old World Highways. (Illustrated.)
B. 1. Geology and Water Supply. (Illustrated.)
C. 1. Education for Service.

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*

A. 1. Plans and Advice for the Improvement of School Grounds. (Dr. Coker will visit schools for the purpose of furnishing plans and advice for the improvement of grounds.)

PARKER HAYWARD DAGGETT, S. B., *Professor of Electrical Engineering.*

A. 1. The Electrical Age. (Illustrated.)
B. 1. Electric Light and Power in the Home. (Illustrated.)
B. 2. Electricity on the Farm. (Illustrated.)

NORMAN FOERSTER, A. M., *Associate Professor of English.*

A. 1. New England Transcendentalism.
B. 1. The Teaching of English in the Secondary School.

EDWARD KIDDER GRAHAM, A. M., D. C. L., LL. D., *President.*

A. 1. The Progressive. (A popular lecture on community spirit and development.)
A. 2. The Enjoyment of Books. (A popular lecture on reading.)
C. 1. Ideals and Tasks.

Edwin Greenlaw, Ph. D., *Professor of English.*

A. or B. 1. The Idea of Tragedy in Shakspere.
A. or B. 2. Literature and the World Crisis.
A. or B. 3. Idealism in Ibsen's Early Plays: (*a*) The Pretenders. (*b*) Brand. (*c*) Peer Gynt.

Joseph Gregoire deRoulhac Hamilton, Ph. D., *Alumni Professor of History.*

A. 1. Andrew Jackson, a Product of Democracy.
A. 2. The Real Abraham Lincoln.
B. 1. The Locality as a Field for Historical Investigation.
C. or B. 2. The Question of Constitutional Amendment.

James Holly Hanford, Ph. D., *Associate Professor of English.*

A. or B. 1. The Literature of War.
B. 2. Samuel Johnson and His Circle.
B. 3. The Greek Ideal in English Poetry.
B. 4. Education Without Letters: a study of traditional culture.

Elmer A. Harrington, Ph. D., *Professor of Physics.*

A. or B. 1. Color Photography. (Illustrated with lantern slides and experiments.)
B. 2. The Photography of Colored Objects. (Illustrated with lantern slides and experiments.)

Archibald Henderson, Ph. D., *Professor of Pure Mathematics.*

A. or C. 1. The South's Awakening.
B. 1. The Teaching of Geometry.
B. 2. The Foundation of Geometry.

Charles Holmes Herty, Ph. D., *Smith Professor of General and Industrial Chemistry.*

A. or B. 1. The Possibilities of an American Potash Supply.
A. or B. 2. The Status of Dyestuffs Manufacture in the United States.
A. or B. 3. Chemistry in the Service of Cotton.
A. or B. 4. Aiding Nature in Our Pine Forests.
B. 5. Home Illumination.

THOMAS FELIX HICKERSON, A. M., *Associate Professor of Civil Engineering.*

B. 1. Problems of Highway Location, Construction, and Maintenance.
B. 2. Engineering for Land Drainage.
B. 3. Private Water Systems for the Home and Farm.

GEORGE HOWE, Ph. D., *Professor of Latin.*

A. 1. The Poetry of the Augustan Age.
B. 1. The Teaching of Latin in the High Schools.

EDWARD VERNON HOWELL, A. B., Ph. G., *Professor of Pharmacy.*

A. or B. 1. Narcotic and Other Injurious Drugs: What the Public Should Know About Them.

ATWELL CAMPBELL MCINTOSH, A. M., *Professor of Law.*

C. Commencement Addresses.

GEORGE MCFARLAND MCKIE, A. M., *Associate Professor of Public Speaking.*

A. 1. Recitals from Kipling.
A. 2. Recitals from Tennyson and Browning.
A. 3. Recitals from Modern American Humorists.
B. 1. The Essentials of Public Speech.

WILLIAM DEBERNIERE MACNIDER, M. D., *Professor of Pharmacology.*

A. or B. 1. The Origin and Prevention of Epidemics of Typhoid Fever.
B. 1. The Value of Diuretic Substances in Different Types of Nephritis. (For county medical meetings.)
B. 2. The Effect of Different Anesthetics on the Pathology of the Kidney in Acute Nephritis.
B. 3. The Effect of Chloroform and Ether on the Heart.

Marcus Cicero Stephens Noble, *Professor of Pedagogy.*

A. 1. Scotland and Its Schools.
A. 2. Community Progress.
A. 3. Public Schools and Public Taxes.
A. 4. The Influence of Geography on North Carolina History.
B. 1. Methods of Teaching in the Public Schools.
B. 2. School Management, the Teacher, the Pupil, and the Parent.
C. Commencement and Educational Rally Addresses.

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*Andrew Henry Patterson, A. M., *Professor of Physics.*

(Not given in 1915-16.)

A. 1. The Story of the Stars. (Illustrated with lantern slides.)
A. 2. The Gyroscope and its Applications. (With experiments.)
A. 3. Sound Waves and Their Uses. (With experiments.)
B. 1. The Story of Radium. (With demonstrations.)
B. 2. The Teaching of First-Year Physics. (With experiments.)
C. Commencement Addresses.

William Whatley Pierson, Jr., A. M., *Instructor in History.*

A. 1. Trade Relations of the United States and Latin America.
A. 2. The Monroe Doctrine—Past and Present.
A. 3. The Peace Movement and Public Economics.

Joseph Hyde Pratt, Ph. D., *Professor of Economic Geology.*

A. 1. Natural Resources of North Carolina.
A. 2. The Forests of North Carolina.
A. 3. Swamp Lands and Their Reclamation.
A. 4. Road Problems in North Carolina.

Edgar Ralph Rankin, A. M., *Assistant Director of the Bureau of Extension.*

B. 1. How to Organize and Conduct High School Literary and Debating Societies.

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* Absent on leave, 1915-1916.

CHARLES LEE RAPER, Ph. D., *Professor of Economics.*

A. or C. 1. Taxation by the State.
A. or C. 2. Taxation by the Municipality.
A. or C. 3. Taxation and Proposed Amendments to the Constitution.
A. or C. 4. Coöperative Marketing of Farm Products.
A. or C. 5. Credits Institutions for the Farmers.
A. or C. 6. The Effects of the European War on the People of the United States: (*a*) Their Money and Credit; (*b*) Their Wheat and Other Foodstuffs; (*c*) Their Cotton; (*d*) Their Cotton Goods and Other Textiles; (*e*) Their Labor and Wages; (*f*) Their Costs and Burden of Living.
C. Commencement Addresses.

ORESTES PEARLE REIN, Ph. D., *Assistant Professor of German.*

A. 1. The German Educational System.

MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*

A. or C. 1. Some High School Problems.
B. 1. The Farmers' Part in Highway Improvement.
C. Commencement Addresses.

WALTER DALLAM TOY, A. M., *Professor of the Germanic Languages and Literatures.*

A. or B. 1. The German Universities.
A. or B. 2. Martin Luther.
A. or B. 3. Bismarck. (Illustrated.)

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., *Professor of Chemistry.*

A. 1. Lessons in Democracy from a Swiss City.
B. 1. The Wonders of Radium.

HENRY MCGILBERT WAGSTAFF, Ph. D., *Professor of European History.*

A. 1. The Underlying Causes of the European War.

Nathan Wilson Walker, A. B., *Professor of Secondary Education.*

A. or C. 1. The School and the Community.
A. or C. 2. Education and Democracy.
A. or C. 3. Our Country High Schools and Their Work. (Illustrated.)
A. or C. 4. The Newer Demands Upon the School and How They Are to be Met.
A. or C. 5. The State's Educational Agencies.
A. or C. 6. The Farm-life School Idea and How it is Working Out in North Carolina. (Illustrated.)

Lester Alonzo Williams, Pd. D., *Professor of Rural Education.*

A. 1. Facts and Figures in Education.
A. 2. The School and the Community.
A. 3. James Whitcomb Riley, the Child's Poet.
B. or A. 4. Work, Play, Drudgery.
B. 2 or A. 5. Teaching: A Job, a Position, or a Profession.
B. 3. Schoolroom Wastes and How to Prevent Them.
B. 4. Those Little Animals We Teach.
B. 5. The Farm-life School: Its Place in the Community.
C. Commencement Addresses.

Henry VanPeters Wilson, Ph. D., *Professor of Zoology.*

A. 1. All Sorts of Animals. (Illustrated.)

Louis Round Wilson, Ph. D., *Professor of Library Administration.*

A. or B. 1. The Public Library in Community Building.
A. or B. 2. Books for the Farm, and How to Get Them.
A. or B. 3. The Library's Place in the High School Community.
C. Commencement Addresses.

III. CORRESPONDENCE COURSES

Announcement

The University of North Carolina offers through the Bureau of Extension a series of extramural courses by correspondence, conducted by its regular faculty.

Purpose

These courses are a continuation of the extension policy of the University. The response to the correspondence courses offered the last two years has necessitated the enlargement of the scope of such work for this year. It is the ultimate purpose of these courses to make University instruction possible for every resident of North Carolina.

An attempt will be made to offer study courses for the teacher, the tradesman, the artisan, the general reader, the student along any line covered by the regular courses at the University. The extent of such courses will be determined by the calls received. The courses here presented are only a beginning.

Time Required

Except as otherwise indicated, a full course will mean thirty weekly lessons. Courses may be begun at any time between October and March. No assignments will be made and no lesson plans sent out from June to October except by special arrangement and by payment of an extra fee. If a course is begun too late in the college year to be completed before the close of the year, it may be completed the following term.

The time required by the student will vary with the course and with the aptitude of the student, no definite requirement is made by the University. What the student gets from the course depends upon his or her individual efforts.

Credit and Non-Credit

Certain of the courses as indicated will be allowed to count toward the A. B. degree under the restrictions as later stated. All other courses are considered non-credit courses and cannot be counted towards a degree. For further information as to the credit courses, consult the following paragraph.

Credit Courses

Certain courses indicated in this chapter may be credited toward the A. B. degree. One-fourth of the number of courses required for this degree may be taken through correspondence, but not over one-half of this total may be done in any one university year. A candidate must meet college entrance requirements before being allowed credit for such work. A candidate wishing to pursue more advanced courses must present satisfactory credentials as to his fitness to pursue such courses in addition to credentials for college entrance. For every credit course a fee of $5 in addition to the registration fee of $2 is required, *e. g.,* one course $7, two courses $12, three courses $17, etc. Final examinations in all courses must be taken by candidates either at the University or under conditions approved by the University.

Certificates

When a course has been satisfactorily completed, whether credit or non-credit, a certificate to that effect will be issued and sent to the student.

Fees

A fee of $2 will be charged for registration. In addition, there will be the instruction fee of $5 for credit courses or of $3 for non-credit courses. Any other fees will be indicated in the announcement of the course (see below). These fees are necessary to cover the cost of postage and of the clerical work. The instructors will be the regular members of the University faculty, whose only reward will be the personal knowledge that they are serving the needs of the people in the State. They are freely and voluntarily giving their services.

No fees or parts of fees can be remitted after a course is once begun. Dropping a course before it is finished will necessitate a new registration fee as well as the usual instruction fees before another course can be pursued. All work for credit when once begun must be continued year after year, consecutively, or a new registration fee will be required in addition to the usual instruction fees.

Method of Procedure

1. Write to Prof. L. A. Williams, Chapel Hill, N. C., state your probable choice of courses, include the registration fee of $2, and

ask for an enrollment card in the Division of Correspondence Study of the Bureau of Extension.

2. Upon the receipt of this card and the accompanying folders, fill out the card as fully as possible, state the course or courses you wish to pursue, determine the cost for instruction, extra fees, etc., and make out a check, postal money order or express money order to Bureau of Extension, University of North Carolina, and send card and money to Prof. L. A. Williams, Chapel Hill, N. C.

3. Just as soon as the office at the University receives your money and your enrollment card, lessons 1 and 2 will be sent to you. Prepare lesson 1 and return to Mr. Williams within a week. While lesson 1 is being corrected, work on lesson 2. Lesson 3 will be sent to you within one week from receipt of lesson 1, accompanied by the corrected lesson 1. Send lesson 2 upon receipt of lesson 3, and so on for the entire course, preparing one lesson while the previous one is being corrected.

4. Address all correspondence, prepared lessons, questions about lessons, books, etc., to Prof. L. A. Williams, Chapel Hill, N. C.

COURSES OF INSTRUCTION

Drawing

c 1. This course is designed to give the student who has never handled mathematical drawing instruments a thorough course of instruction in their use, and an understanding of the elementary principles of mechanical drawing. Instruction in free-hand lettering is given in connection with this course. Text-book. *Credit course, two hours.* Assistant Professor JAMES. Fee, $5. Drawing materials extra.

c 2. High School Course in Mechanical Drawing. An elementary course in mechanical drawing designed to aid those high schools that do not have a special teacher in this branch of work. Specific aid will be furnished to a regular teacher in the school by whom the classes may be organized and conducted. The work done in this course will be of great value to the high school students of geometry, and is of special importance to students intending to go into any phase of engineering work. The practical applications are emphasized. The work will require about two school periods

each week. *Entrance Credit, one-half unit.* Assistant Professor James. Fee, $3. Instruments and material, $6 to $10 extra.

Note.—If a class of five or more is organized to take up this work the total fees will be: Registration for the class, $2 per student; instruction, $1 per student; instruments and materials, $5 to $10 per student; total, $8 to $13 per student.

Economics

c 1. General Economics. A general course in elementary economics. It will treat of the uses of wealth for living, development, and government. It will also treat of the making of wealth by means of agriculture, manufacturing, commerce, and transportation. *Half-year, non-credit.* Professor Raper. Fee, $1.50.

c 2. Applied Rural Economics and Sociology. Confined to a study of the student's own home county, as outlined in the University Home-County Club-Study Syllabus. The subjects covered are: Historical Background, Natural Resources, Population Studies, Wealth and Taxation, Crops and Annual Products, Organization and Coöperation, Farm Credits and Markets, Improved Public Highways, Roadway Facilities, Public Schools and Higher Education, Public Health and Sanitation, Church and Sunday School Problems, Country Home Studies, Amusements and Recreations. *Full Year course, non-credit.* Professor Branson. Fee, $3.

Education

c 1. A brief study of the Principles of Teaching, the preparation of model lessons based on principles studied. *Non-credit.* Professor Noble. Fee, $3.

c 2. High School Organization. A study of the history, function, organization, management, program of studies, and internal equipment of the high school. Emphasis will be laid upon the rural public high school. Text-book, parallel readings, reports. Advanced course. *Credit course, one and one-half hours.* Professor Williams. Fee, $5.

c 3. School Hygiene. A study of school grounds, buildings, and equipment. The features of construction, decoration, sanitation,

and location will be considered. Schoolroom diseases, medical inspection, care of exceptional children will be emphasized. *Non-credit.* Professor WILLIAMS. Fee, $3.

c 4. The Psychology of Education. A study of the fundamental psychological principles underlying educational theory and practice. Text-book. *Non-credit.* Professor CHASE. Fee, $3.

NOTE.—Education c 5 and c 6 will not be given in 1916-1917.

c 7. Elementary School Problems. A reading course designed for the teacher or principal in elementary schools who wishes to obtain a grasp of the school problems from various angles. The work is designed primarily for teachers in rural and town schools. From a given list of books, seven are to be chosen and read in the light of suggestive hints and questions furnished by the University School of Education. In addition, reports will be required from time to time. Two years, at the least, will be required for completing this course. A longer period will be allowed if arrangements are made for so doing at the time of registration. Two examinations will be required: one upon completion of four books, one upon the completion of the entire seven books. *Non-credit.* The Professors of the School of Education. Fees: Registration, $2 plus instruction, $5; total, $7. Books extra. The instruction fee may be paid in two installments—$2.50 at time of registration (plus $2 registration fee), $2.50 more upon resuming work after the first examination.

NOTE.—Arrangements have been made with the State Department of Education at Raleigh whereby the Reading Circle Certificate will be granted by that department to all teachers who satisfactorily complete this course and pass the examinations.

c 8. Public School Administration. A reading course devoted to a broad survey of the field of public school administration in the United States. *Non-credit.* Professor WILLIAMS. Fee, $3.

NOTE.—Books for this course may be secured from the University Library for a limited period of time upon request and payment of transportation charges.

c 9. Standards and Measurements of School Work. This will be mainly a course of reading designed to be of assistance to superintendents and principals who desire to acquaint themselves with

recent studies which aim to set standards and measure results in the various subjects, mainly those of the elementary schools. It will include such tests as those of Courtis in Arithmetic, Ayres and Thorndike in handwriting, studies in spelling, reading, composition, etc. Most of this material is in pamphlet form and can be ordered from the publishers. The course will also include a brief treatment of the statistical theories underlying such work, and necessary in general for an understanding of the quantitative studies appearing with increasing frequency in educational literature. The course can be shaped to meet the interest of those applying for it, and consists of no set number of lessons. *Non-credit.* Professor Chase. Fee, $3.

Engineering

c 1. Heat. A course intended to supply the fundamental knowledge necessary for a thorough understanding of power-plant machinery. It may be taken to advantage by engineers and firemen who have had some practical experience, but whose advancement is handicapped by a lack of knowledge of the underlying theory. The course deals with the fundamental principles and laws governing the generation, transmission and transformation of heat, and their application to practical problems. A good working knowledge of arithmetic and the ability to handle problems involving simple formulas is required. *Non-credit.* Professor Daggett. Fees, $3, plus text-book, $2.

c 2. Steam Boilers. This course is intended for students and others interested in the installation, operation or management of boiler plants. It deals mainly with boiler types, their construction, operation, and maintenance. Especial attention is devoted to the question of efficient combustion and proper methods of firing. *Non-credit.* Professor Daggett. Fees, $3, plus text-book, $2.50.

c 3. Electricity and Magnetism. This course is designed for those students who have had practical experience with electrical apparatus, but who lack the necessary knowledge of fundamental principles so essential for advancement in their work. Most of the topics considered are developed first experimentally, then the theory is explained, after which the practical applications are discussed briefly. The necessary apparatus for the experiments is

lent by the Extension Bureau to students within the State on payment of a small fee, but students living outside the State must provide their own apparatus. A large number of practical problems will be solved, for which a good knowledge of arithmetic will be necessary. *Non-credit.* Professor Daggett. Fees, $3, plus text-book, $1.50, plus apparatus fee.

c 4. Electric Meters. A course dealing with the construction, principle of operation, use and testing of electrical measuring instruments. Among the subjects treated are: Fundamental electrical principles, current and pressure measuring instruments, power measuring instruments, phase and frequency meters, recording meter, watthour meters, meter testing and instrument errors. Students electing this course should have some knowledge of algebra and trigonometry. *Non-credit.* Professor Daggett. Fees, $3, plus text-book, $2.50.

Note.—In all of these courses the text-books will be furnished from the University for the amounts named, the books becoming the property of the student.

c 5. Mechanics of Engineering. The theory of mechanics as applied to engineering structures and machines: (1) Statics, the action of forces on rigid bodies. (2) Kinetics, a study of the motion of a body under applied forces. (3) Inertia and friction, work and energy. (4) Study of the internal stresses in bodies and structures on which forces act. Text-book. *Non-credit.* Assistant Professor James. Fee, $3.

(Knowledge of algebra through quadratics, of analytic geometry and of calculus is prerequisite to the course.)

English

c 1. Freshman English. Themes are written throughout the year; analytical outlines are prepared about twice a month; a dozen expository essays are studied in detail, with chief emphasis on the ideas contained in them. In the second term some attention is given to narration. This course aims at (1) correct writing, (2) clear thinking, and (3) thorough reading. Required of all Freshmen. *Credit course, three hours.* The Professors of the English Department. Fee, $5.

c 2. The History of English Literature in Outline. A study of representative prose and verse from Beowulf to the end of the nineteenth century. The stress falls upon the actual study of literature rather than literary history, biography, or criticism, but a syllabus is used as a guide. Reports, outlines, and summaries, based on the material read, are required at frequent intervals. Required of all Sophomores in the College of Liberal Arts. *Credit course, three hours.* The Professors of the English Department. Fee, $5.

French

c 1. Elementary Course. Drill in the essentials of French grammar, written exercises, and translation. *Non-credit.* Professor Dey. Fee, $3.

Geology

c 1. Elementary Geology. Lectures with reading and field work; home laboratory on common minerals and rocks. Open only to students who have had Geology 1 in the College or Geology s 3 in the Summer School and given to complete these courses. *Credit course, three hours.* Professor Cobb. Fee, $5, plus carrying charges on minerals and rocks.

(This course can be given only when five or more from one central point apply for it, since it is desirable that the teacher visit the class for field work.)

c 2. Advanced Geological Field Work and Special Research. Geology 13 of the College, and to be taken in extension of that work. *Credit course, one and one-half hours.* Professor Cobb. Fee, $5, plus field expenses of the teachers.

German

c 1. An elementary course equivalent to the first year of high school German. Drill in the essentials of German grammar, translation of easy idomatic German. *Non-credit.* Professor Toy. Fee, $3.

Greek

c A. A course for students who have had no opportunity of studying Greek in the preparatory schools. This course may be

counted for entrance only. *Credit course, four hours.* Associate Professor BERNARD. Fee, $5.

NOTE.—This course is open only to those students who have begun the work in the Summer School.

c 1. Xenophon's Symposium: Review of important grammatical principles; Homer's Iliad, books I, II, and III, and Odyssey, book VI; Lysias, Selected Speeches. Reading at sight. Freshman course. *Credit course, four hours.* Associate Professor BERNARD. Fee, $5.

c 2. Plato, Apology and Crito; Euripides, Hecuba; Aristophanes, Frogs; reading at sight; lectures on Greek Literature. Sophomore course, calls for c 1 as a prerequisite. *Credit course, three hours.* Associate Professor BERNARD. Fee, $5.

c 6. Homer: rapid reading of the entire Odyssey. Junior and Senior elective. Calls for prerequisites. *Credit course, two hours.* Mr. EPPS. Fee, $5.

History

c 1. Modern European History. A course of study dealing with the primary factors that shaped European history from the close of the great religious war, 1648 (The Thirty Years War), to the present time. The present Europe will be interpreted by a study of the influences that gave its nations their present boundaries, their particular forms of government, and their national ideals and ambitions. Outline studies, texts and reference readings. A Junior and Senior course. *Credit course, two hours.* Professor WAGSTAFF. Fee, $5.

NOTE.—Any one desiring to take this course but not caring for credit may do so by paying the fee.

c 2. North Carolina History. A study of the leading facts of the history of the State during the Colonial and Revolutionary periods, together with a survey of the industrial and educational development down to the Civil War. *Non-credit.* Professor NOBLE. Fee, $3.

c 3. American History. A general course covering the social, political and economic development of the United States. Text-

book, syllabus, papers and readings. *Credit course, three hours.* Professor Hamilton. Fee, $5.

c 4. American History. An outline course in American History. Text-book and syllabus. Less detailed than c 3 above. Designed for high school teachers of American History. *Non-credit.* Professor Hamilton. Fee, $3.

Latin

c A. Cæsar's Gallic War: Translation; special study of case constructions, analysis of subordinate clauses, exercises in indirect discourse; vocabulary and word-derivation; studies in the content. *Non-credit.* Professer Howe. Fee, $3.

c 1. Cicero, De Senectute and De Amicitia; Livy, selections; Horace, selected Odes and Epodes; exercises in syntax based on the text read; sight translation. This course is the same as course 1-2 offered in the regular session. *Credit course, four hours.* Professor Howe. Fee, $5.

c 2. Latin Composition. The course will begin with translation into Latin of detached sentences illustrating the general principles of syntax and word-order; the second half will deal with continuous narrative and with questions of diction and style. *Credit course, two hours.* Assistant Professor Henry. Fee, $5.

c 3. A course for teachers of Latin in high school. It aims at a general treatment of grammar from a historical point of view. Especial attention will be paid to case theories, sequence of tenses, use of moods and the more technical syntactical usages of the language. The course will be based on a study of Gildersleeve's Grammar and Bennett's Latin Language. *Credit course, two hours.* Professor Henry. Fee, $5.

(Not to be given in 1915-1916. To be given in 1916-1917.)

Note.—All these courses will be of value particularly to high school teachers of Latin.

Mathematics

c 1. A review of the principles of arithmetic. Special attention to High School arithmetic. *Non-credit.* Professor Noble. Fee, $3.

c 2. Solid Geometry. A careful study of the text. Original problems. Text-book. *Non-credit.* Professor HENDERSON. Fee, $3.

c 3. Algebra. Algebra, from Quadratics through Theory of Equations. Plane and Spherical Trigonometry and Logarithms. The regular course required of Freshman. Probably more than thirty lessons will be required to complete the course. *Credit course, four hours.* Professors of the Mathematics Department. Fee, $5.

IV. GUIDANCE IN DEBATE AND DECLAMATION

This division of the Bureau of Extension offers assistance in two ways:

1. Material is sent from the Library for use in debate and declamation upon the payment of the transportation charges.

2. Through the High School Debating Union it supervises a state-wide debate which culminates in the contest at the University for the Aycock Memorial Cup.

The final contest of the session 1912-1913, in which seventeen schools out of ninety participated, was won by Messrs. Grady Bowman and Samuel C. Hodgin of the Pleasant Garden High School, Guilford County. The final contest of the session 1913-1914, in which forty-one schools out of one hundred and fifty participated, was won by Messrs. Clifton Eaton and Charles Roddick of the Winston-Salem High School. The final contest of 1914-1915, in which fifty out of two hundred and fifty participated, was won by Misses Lalla Rook Flemming and Ethel Gardner of the Wilson High School.

The following bulletins have been issued:

Woman's Suffrage.
Addresses on Education for Use in Declamation.
The Initiative and Referendum.
Public Discussion and Debate.
Ship Subsidies.
The Enlargement of the Navy.

V. COUNTY ECONOMIC AND SOCIAL SURVEYS

This division of the Bureau of Extension has the supervision of the investigations of the County Clubs, whose purpose is to aid through wisely directed study the efforts to better the economic and social conditions in the various communities of the State.

The following bulletins have been issued:

Coöperative Institutions Among the Farmers of Catawba County.
Syllabus of Home-County Club Studies.

VI. MUNICIPAL REFERENCE AIDS

The work of this division consists in the study of municipal legislative problems and in the furnishing of material that bears upon current municipal improvement and legislation.

VII. EDUCATIONAL INFORMATION AND ASSISTANCE

For teachers, principals, superintendents, school communities and boards. The School of Education acts as a clearing house for information concerning all phases of educational work and conducts a teacher's bureau as an aid to communities and schools in securing efficient teachers.

The following bulletin has been published relating to the work of this division:

The Teaching of County Geography.

PUBLICATIONS

The Bureau of Extension maintains the following publications:

Extension Series Bulletin.
School of Education Letter Series.
University of North Carolina News Letter.

PART FIVE

THE UNIVERSITY LIBRARY

PUBLIC LECTURES

THE BYNUM GYMNASIUM

LABORATORIES

UNIVERSITY ORGANIZATIONS

THE UNIVERSITY LIBRARY

OFFICERS

Louis Round Wilson, Ph. D., *Librarian.*
Charles Lee Raper, Ph. D., *Committeeman.*
William Chambers Coker, Ph. D., *Committeeman.*
William Morton Dey, Ph. D., *Committeeman.*
Edwin Greenlaw, Ph. D., *Committeeman.*
Nan Spotswood Strudwick, B. L. S., *Assistant Librarian.*
Annie Jungermann, *Assistant Librarian.*
Frank Hodges Cooper, *Assistant in the Library.*
James Cornaro Blaine, *Assistant in the Library.*
William Cecil Rymer, *Assistant in the Library.*
John Overton Dysart, *Assistant in the Library.*
Joseph Henry Allred, *Assistant in the Library.*
James Thomas Carr Wright, *Assistant in the Library.*

The University Library contained at the end of the academic year 1914-1915 seventy-four thousand seven hundred and fifty volumes and about nineteen thousand two hundred and fifty pamphlets. This collection has been largely classified and catalogued according to the Dewey or decimal system and its contents have been rendered easily accessible by means of a thorough dictionary author, title, and subject card catalogue.

The Library funds are expended under the direction of the Librarian, the Library Committee, and Professors in charge of Departments, with special reference to the instruction given in the University. The annual addition of books from purchase, donations, and exchanges is about thirty-seven hundred volumes, all of which are carefully classified and catalogued as they are received.

The Librarian and those assisting in the Library are constantly in attendance to give help in any line of research or reading. A special collection of dictionaries, encyclopedias, almanacs, handbooks, atlases, concordances, and other reference books is provided for general use in the reference room.

In addition to the resources of the general reference room, the Library places at the disposal of students for reference purposes a collection of ten thousand bound periodicals covering all fields of general, technical, and professional information. A great number of the sets belonging to this collection are complete from their beginning, and consequently completely cover the history and progress of the subjects of which they treat. In this way students pursuing a general academic and special technical or professional courses have access to the best American, English, and Continental periodical literature to be found on their subjects. The articles contained in these files are fully indexed in special periodical indexes and are referred to with ease.

Eight hundred and forty-eight current periodicals, transactions of literary, scientific, historical and other societies, university studies, serial publications, and a half hundred daily and weekly newspapers, continuing and supplementing the bound sets, are subscribed for and received annually. They are to be found in the general periodical room and in the seminars, professional schools, and scientific laboratories, where they can be consulted in the course of daily work.

As the Library is a depository for the publications of the United States Government, it contains more than seven thousand volumes of material especially valuable for reference in debate and in the study of social and political science, useful arts, and the natural sciences. This collection is thoroughly indexed and its contents are easily consulted.

Five special seminar rooms have been equipped in the general Library to facilitate advanced work in English and German Literatures and Languages, Greek and Latin Literatures and Languages, the Romance Literatures and Languages, History, and North Carolina History. Special scientific and professional collections are to be found in the libraries or seminars belonging to the departments in which such instruction is given. These collections are under the supervision of the instructors in the respective departments and the Librarian, and aid is given students in the use of books relating to their work.

The main Library is housed in a commodious modern library building erected in 1907, and represents an expenditure for construction and equipment of $66,500.00. The reference, current periodical, and seminar rooms in the main Library are large,

well lighted, and have table and seating capacity for two hundred students at one time.

The stack room contains two levels of steel shelving with stairway and glass mezzanine floor between and, with its present complement of shelving, capacity for seventy thousand volumes. Its ultimate capacity is one hundred and five thousand volumes, which, taken with that of the other parts of the building, totals one hundred and seventy-five thousand volumes.

Brief instruction in the use of the card catalogue, the periodical indexes, and the reference books generally, is given new students at the beginning of each year, and to any student at any time who may request it. Instruction in a regular University class is also given to students who are preparing for positions in school and public libraries, with a view to making them more efficient in the discharge of their special duties.

The Library is open on week days from 8:30 A. M. to 1:15 P. M., and from 2:00 P. M. to 6:15 P. M.; on week-day evenings, Saturday excepted, from 7:00 P. M. to 10:00 P. M.; on Sundays, from 2:30 P. M. to 4:30 P. M.; on University holidays, from 3:00 P. M. to 4:00 P. M.

The following rules are considered necessary for the proper use of the Library. They will be enforced with strict impartiality:

Subscribers to the Library are the students and members of the faculty.

Other persons who desire to use the Library may become subscribers on payment of the regular Library fee.

The Library fee is four dollars a year, two dollars a term, or fifty cents a month.

Persons who are not subscribers may not borrow books on a subscriber's name.

Not more than three books may be charged to one name at the same time.

Fines for books kept over fourteen days (including the day of issue) will be imposed with exact regularity at the rate of five cents per day. Books borrowed for debate or for class use may be kept out from 9 P. M. until 10 A. M. of the following day. After that hour they are subject to a fine at the rate of five cents per hour. The date on the pocket or fly-leaf of book is sufficient notice when the book is due.

Failure to pay fines within three weeks from the time they are due will debar the delinquent from further use of the Library.

Books from the reference room must remain in the Library during Library hours. They may be loaned only at the discretion of the Librarian.

Magazines must not be removed from the Library until they are bound. If removed they are subject to the regulations applying to debate books.

Mutilation of books or magazines, or defacement by writing in them, must be paid for by purchase of a new copy.

Any conversation in the Library, except to obtain books desired, is forbidden.

Continued disregard for any of these rules will cause the offender to forfeit the right to use the Library.

PUBLIC LECTURES

THE JOHN CALVIN McNAIR LECTURES

The lecture fund established by the will of John Calvin McNair, of the class of 1849, became available in 1906, and the interest therefrom rendered it possible to begin the lectures in 1908. The honorarium for the lectures amounts to $500, and the remainder of the interest from the fund provides for the suitable publication of the lectures. Under the will the objects of the lectures "shall be to show the mutual bearing of science and religion upon each other and to prove the existence of attributes (as far as may be) of God from nature."

The lectures for 1908 were delivered by Professor Francis H. Smith, LL. D., of the University of Virginia. The three lectures were:

1. The general theme: God Manifest in the Material Universe.
2. His Attributes as Manifested in Physics.
3. His Attributes as Manifested in Astronomy.

The lectures for 1909 were delivered by President Francis Landey Patton, D. D., LL. D., of Princeton Theological Seminary, New Jersey. The four lectures were:

1. The Authority of the Bible.
2. The Authority of the Church.
3. The Authority of Christ.
4. The Authority of the Reason.

The lectures for 1910 were delivered by President David Starr Jordan, Ph. D., M. D., LL. D., of Leland Stanford, Jr., University, California. The lectures were on the theme:

The Stability of Truth.

The lectures for 1911 were delivered by Professor Henry Van Dyke, D. D., LL. D., of Princeton University. The three lectures were:

1. The Poetry of Nature.
2. The Poetry of Patriotism and Humanity.
3. The Poetry of the Unseen World.

The lectures for 1912 were delivered by President Arthur Twining Hadley, A. M., LL. D., of Yale University. The three lectures on the general subject, Some Tendencies of Modern Philosophic Thought, were:

1. Changed Conceptions of Science.
2. New Views of Ethics and of Politics.
3. The Spiritual Basis of Modern Literature.

The lectures for 1913 were delivered by Professor Francis G. Peabody, A. M., D. D., LL. D., of Harvard University. The three lectures were:

1. The Practicability of the Christian Life.
2. The Christian Life and the Modern Home.
3. The Christian Life and Modern Business.

The lectures for 1914 were delivered by President George Edgar Vincent, Ph. D., LL. D., of the University of Minnesota. The title of the series was The Social Vision, and the lectures were:

1. The Sense of the State.
2. The Larger Selfishness.
3. The Kingdom of God.

The lectures for 1915 were delivered by Professor John Dewey, Ph. D., LL. D., of Columbia University. The three lectures on the general theme, Philosophy and Politics, were:

1. The Division into the Inner and the Outer World.
2. The State and Moral Life.
3. The Philosophy of History.

THE WEIL LECTURES

During the year 1914-1915 an unendowed lectureship on American citizenship was established by the University. The first incumbent was Ex-President William Howard Taft, who lectured on "The Presidency: Powers, Duties, Obligations and Responsibili-

ties." Since that time this foundation, named the Weil Lectures on American Citizenship, has been permanently established through the generosity of the families of Mr. Sol Weil and Mr. Henry Weil, of Goldsboro, N. C.

The first incumbent on the Weil establishment will be Professor George Brinton McClellan of Princeton University.

UNIVERSITY LECTURES

The following University lecture was delivered during the session of 1914-1915:

Professor Richard Burton: George Bernard Shaw.

SOUTHERN EXCHANGE LECTURESHIP

The purposes of this lectureship are: to promote scholarship; to present in concrete form recent advances in some special branch of learning; and to bring the institutions concerned into closer relationship through exchange of ideas in regard to all vital problems affecting a modern university.

The exchange lecturer to the University for 1915-1916 is Professor Patterson Wardlaw of the University of South Carolina. Professor H. V. Wilson is to deliver the lectures at the University of Virginia.

UNIVERSITY SERMONS

The University sermons for the session 1914-1915 were delivered by:

Rev. Edwin V. Heath.
Rev. John B. Gibble.
Rev. John J. Hurt, D. D.
Rev. Samuel K. Phillips.
Rev. W. E. Abernethy.
Rev. John N. Mills, D. D.

WILLIAM PRESTON BYNUM, JR. GYMNASIUM

Robert Baker Lawson, M. D., *Director.*
Francis Osborne Clarkson, *Assistant.*
Zebulon Baird Vance Jones, *Assistant.*

The William Preston Bynum, Jr., Gymnasium, the gift of Judge William Preston Bynum, in memory of his grandson, William Preston Bynum, Jr., of the class of 1893, is a handsome, two storied brick building, furnished with modern apparatus, swimming pool, baths, lockers, and running track. It contains also the trophy room and the office of the Physical Director.

Exercise in the Gymnasium is required three hours a week of all Freshmen, unless excused by the Physical Director. In the fall, a thorough physical examination of each Freshman is made, and the heart, the lungs, the eyes, and the ears are tested, in order that students defective in physical development may be given special work under the personal supervision of the Director. Round shoulders, flat chests, curvature of the spinal column, hernia, and mild cases of congenital paralysis are thus often greatly benefited and sometimes completely corrected. No student need fear ill results from the work. It is absolutely free from strain of any sort, and is directed in strict accordance with the results of the physical examination. It is impossible to attach too much importance to this examination, since it points out the muscular, functional, or organic defects, and enables the student to direct his efforts toward their correction.

LABORATORIES AND MUSEUMS

THE PHYSICAL LABORATORIES

*Andrew Henry Patterson, A. M., *Director and Professor of Physics.*
Parker Hayward Daggett, S. B., *Professor of Electrical Engineering, and Acting Director.*
Vivian Leroy Chrisler, A. M., *Instructor in Physics.*
Edgar Ivan Staples, S. B., *Instructor in Electrical Engineering.*
Edwin Yates Keesler, A. B., *Assistant in Electrical Engineering.*
Lee Henry Edwards, *Assistant in Physics.*
Herman Glenn Baity, *Assistant in Physics.*
Charles Spurgeon Harris, *Assistant in Physics.*

The Physical Laboratory occupies the eastern half of the main floor and almost the whole of the basement floor of the Alumni Building, amounting to about eight thousand square feet of floor space.

The main floor is divided into a large lecture room, an apparatus room and two laboratories for students in the general course.

In the rooms of the basement are located a large lecture room and the electrical laboratories, including a dynamo laboratory, photometric laboratory, storage-battery room, standardizing laboratory, high-tension laboratory, a laboratory for electric and magnetic measurements and the departmental library and office.

The dynamo laboratory is equipped with standard types of machines varying in size from 2 to 10 h. p., including various shunt and compound dynamos, a 2 h. p. series crane-motor, 3 h. p. commutating-pole motor, 5 kv. a. 3-phase alternator, 3.5 kv. a. polyphase alternator, 2 h. p. single-phase induction motor, 3 h. p. 3-phase induction motor of squirrel-cage type, 5 h. p. 3-phase induction motor, slip-ring type, 3 kv. polyphase synchronous-converter, a number of distributing type transformers and a set of transformers with taps for "T" connection. There are also provided a large number of rheostats, controllers and starting boxes, a large lamp bank arranged for delta or star connection and

* Absent on leave, 1915-1916.

two portable testing tables with facilities for rapid testing work. None of the windings of the machines is connected up permanently, but all windings and all apparatus are fitted with a plug-and-socket system of connections, and the students are required to make all the connections for each test.

The photometric laboratory is equipped with a standard Reichsanstalt photometer bench with three-meter track, Bunsen screen, Lummer-Brodhun disappearance and contrast screens, and a flicker photometer built by the students. There is also a small photometer arranged for rapid commercial testing. The laboratory is supplied with the following photometric accessories: standard Hefner lamp; a number of certified carbon and tungsten incandescent standards; a compound rotator and an arc lamp mirror selector for taking flux distribution curves; a luxometer for illumination surveys, and a number of shades and reflectors of various types. The laboratory is also supplied with constant potential and constant current arc lamps, direct and alternating current types, a 4-ampere magnetite arc, 12-ampere flaming-arc and a 3.5-ampere mercury-arc.

The storage battery room contains sixty 240-ampere-hour cells made by the Electric Storage Battery Company. This battery furnishes a steady supply of direct current at 120 volts for photometric work, calibration of instruments and for general testing. The voltage is controlled by 8 end-cells located in a room off the dynamo laboratory.

The standardizing laboratory is equipped with a Weston laboratory standard voltmeter, a Siemens-Halske laboratory standard ammeter, Hartmann & Braun Hot-wire voltmeter and ammeter for intermediate standards, a number of Weston standard cells and a Leeds and Northrup Potentiometer with volt-box and a set of standard shunts and multipliers. The circuits of the room are arranged for rapidly calibrating the laboratory testing instruments at any time.

The electric light, central heating, and waterworks plants constitute valuable adjuncts to the laboratory. For work in practical testing there are available a 35 h. p. Ball engine, a 20 h. p. slide-valve engine, two types of steam pump, two gasoline engines, with calorimeters, meters, thermometers, Orsat apparatus, indicators and other accessory apparatus necessary for making complete tests

on power plants. The central power plant of the University also contains a 115 h. p. Ball and Wood engine, direct-connected to a Crocker-Wheeler 3-phase generator; a 70 h. p. Skinner engine with direct-connected General Electric 3-phase generator; a 50 h. p. De Laval steam turbine; a D'Olier four-stage centrifugal pump, direct-connected to a 75 h. p. 3-phase Crocker-Wheeler motor, and all necessary accessories.

CHEMISTRY HALL

Charles Holmes Herty, Ph. D., *Director and Smith Professor of General and Industrial Chemistry.*
Francis Preston Venable, Ph. D., D. Sc., LL. D., *Francis Preston Venable Professor of Chemistry.*
Alvin Sawyer Wheeler, Ph. D., *Professor of Organic Chemistry.*
James Munsie Bell, Ph. D., *Professor of Physical Chemistry.*
Clarence Ballew Hoke, S. B., *Instructor in Chemistry.*
Carnie Blake Carter, M. S., *LeDoux Fellow and Assistant in Chemistry.*
Victor Aldine Coulter, M. S., *LeDoux Fellow and Assistant in Chemistry.*
Victor Clyde Edwards, A. B., *Fellow in Organic Chemistry.*
Lucius Coleman Hall, *Assistant in Chemistry.*
Oscar Asa Pickett, *Assistant in Chemistry.*

Chemistry Hall is located east of Alumni Hall and north of the New East Building. The main portion of the building is 120 feet long and 68 feet wide, and to the rear is the main lecture room, 41 by 62 feet. The building is of pepper-and-salt brick.

The laboratories are lighted by electricity and are heated by hot water from the central Power Plant of the University. The storage battery in the Alumni Building furnishes current for Electrochemical experiments, for motors and for stereopticon purposes.

In the halls of the main floor are numerous museum cases with specimens of typical chemicals, minerals and chemical products, many of which have been presented to the department by commercial firms. Each laboratory is provided with fume closets for the removal of noxious gases.

Following is a directory of the building:

Main Floor

Room 1. Office of the Director
Room 2. Private laboratory
Room 3. Departmental library
Room 4. Research laboratory
Room 5. Balance Room
Room 6. Quantitative Analysis (24 desks)
Room 7. Private laboratory
Room 8. General Lecture Room (seating 200)
Room 9. Private laboratory
Room 10. Biological Chemistry (36 desks)
Room 11. Office
Room 12. Organic Chemistry (22 desks)
Room 13. Private laboratory

Second Floor

Room 14. Hydrogen Sulfide Room
Room 15. Qualitative and quantitative laboratory (56 desks)
Room 16. Qualitative laboratory (90 desks)
Room 17. Lecture room (seating 50)
Room 18. Elementary Chemistry (78 desks)
Room 19. Balance Room
Room 20. Physical Chemistry (8 desks)
Room 21. Private laboratory
Room 22. Elementary Chemistry (16 desks)

Basement

Room 23. Storeroom A (with elevator to each floor)
Room 24. Heavy chemical room
Room 25. Storeroom B
Room 26. Toilet-room
Room 27. Research laboratory
Room 28. Fire-proof room
Room 29. Lumber room
Room 30. Machine and tool room
Room 31. Photochemistry
Room 32. Constant temperature room
Room 33. Assay Room
Room 34. Gas machine and gas analysis room
Room 35. Lecture room (seating 40)

THE BIOLOGICAL LABORATORY

Henry VanPeters Wilson, Ph. D., *Director, and Professor of Zoology.*
William Chambers Coker, Ph. D., *Professor of Botany.*
Wesley Critz George, A. M., *Instructor in Zoology.*
Henry Roland Totten, A. B., *Instructor in Botany.*
Roger Shore Siddall, *Assistant in Zoology.*
Francis Foster Bradshaw, *Assistant in Zoology.*
Norman Anderson Reasoner, *Assistant in Botany.*

The Biological Laboratory, Davie Hall, is occupied by the Departments of Zoology and Botany. The building is a rectangular structure of pepper-and-salt brick and is divided into a main body and two wings. The total length is 125 feet, the depth of the main body 44 feet, that of the wings 38 feet. A basement underlies the whole, above which are two floors. The main body has an additional third floor. The building faces north and south, lies to the east of the New East, and adjoins the Arboretum.

The entrance hall, on the first floor, lighted with large windows on either side of the main doorway, serves for the exhibition of museum specimens of a more popular character. Back of the entrance hall are herbarium, a room for charts and other lecture apparatus, and a room for the storage of zoological specimens. The west wing of this floor is occupied by a lecture room with a seating capacity of one hundred and twenty, the east wing by a laboratory for the elementary classes in zoology and botany. The latter laboratory is arranged for twenty-four wall tables with a window in front of each table.

On the second floor the east wing is occupied by a single large laboratory for advanced work in zoology and the west wing by a similar laboratory for advanced work in botany. Each of these rooms accommodates twenty workers and is lighted on three sides with twenty windows. The main building on this floor includes private work rooms for the professors of zoology and botany; two storerooms, and a library. On the third floor of the main body is a photographic studio with windows on the north side extending to the floor, and with skylights. In the basement are a fire-proof incubator room, a room for micro-photography with adjoining dark room, Janitor's shop, and rooms for the

storage of heavy supplies. The wings in the basement are designed for the keeping of live animals and plants for experimental work in botany and zoology. The building is provided with electric lights and is heated by hot water.

THE GEOLOGICAL LABORATORY AND MUSEUM

COLLIER COBB, A. M., *Director and Professor of Geology and Mineralogy.*
JOSEPH HYDE PRATT, Ph. D., *State Geologist and Professor of Economic Geology.*
JOHN ELIPHALET SMITH, M. S., *Instructor in Geology.*
MARTIN JONES DAVIS, A. B., *Assistant in Geology.*
CURTIS AVENT HOLLAND, *Assistant in Geology.*
WALTER LEON GOLDSTON, JR., *Assistant in Geology.*

The Geological Laboratory occupies the first floor of the New East building. In addition to a lecture room with a seating capacity of about fifty, there is a large laboratory supplied with working collections of minerals, rocks, and fossils, and with photographs, maps, and models illustrating geological structure. The laboratory is furnished with three petrographical microscopes, with four microscopes for soil study, and with apparatus for the slicing and polishing of rocks. Microscope slides have been made of most of the specimens from North Carolina; the department has, also, sections of the typical European rocks. Sections of the rocks around Chapel Hill, and the igneous rocks of the Boston Basin, made by the late Hunter Lee Harris, of the class of 1889, were given to the geological department. There is a room for photographic work.

The University possesses a collection of more than two thousand specimens of building stones, coal, and various products illustrating the economic geology of the State. These are arranged in an exhibition room of six hundred and fifty square feet of floor space. Here also are kept the sections taken with a diamond drill in the coal regions of Pennsylvania, in the region around King's Mountain, where the Summer School of Geology held its sessions, in the Dan River coal fields, and in the Triassic Rocks at Durham, N. C. A complete set of the ores of the precious metals found along the line of the Atchison, Topeka, and Santa Fe Railroad is included in the collection. Valuable addi-

tions have been made to the collection of fossils also, affording increased opportunity for laboratory work in historical geology and paleontology. The collection illustrating economic geology has been largely increased by the addition of many specimens from the mining regions of Northern Ontario. Stereograph and lantern slides illustrating geological phenomena in all parts of the world and lantern slides showing mining methods in all the great mining regions are in constant use, and important additions to this collection have been made during the year.

The Department Library, which occupies a room adjoining the exhibition room, is supplied with State and United States Reports, the papers of working geologists, the best works upon Geology, and scientific periodicals.

THE MEDICAL LABORATORY

The new medical building, Caldwell Hall, completed in 1912, is located on the south side of Cameron Avenue opposite Davie Hall, facing north. This location secures the north light in all of the laboratories used for microscopic work.

To the north is the main building, 117 x 64, and adjoining this, to the south, is a wing, 63 x 36, each containing a basement and two floors. The first floor of the main building is bisected from north to south by an entrance hall 14 feet wide, and from east to west by a corridor 8 feet wide, dividing the floor space into four equal parts. Each part is subdivided into one large class laboratory, 34 x 27, and two private laboratories, 14 x 12½. The class laboratories lie next to the entrance hall. Those on the north side will be used for microscopic work in Histology and Embryology. They are lighted from five large windows on the north side. On the south side are the laboratories for Physiological Chemistry and Experimental Physiology.

The private laboratories, located on the farther side of the class laboratories, are occupied by the instructors. The office of the Dean is in one of the private laboratories on this floor and may be entered from the west end of the corridor.

The second floor is a duplicate of the first floor with the exception that the space above the entrance hall is enclosed and is used for the Departmental Library. On the north side are the Bacteriological and Pathological laboratories, and on the south side the Pharmacological laboratory and a lecture room. The

laboratories here have the same arrangement as those on the first floor. Nearly opposite the Pathological laboratory is the Pathological Museum.

At the ends of the corridor on the first and second floors are small fire-proof rooms which will be used for incubators, thermostats, and other purposes requiring the continuous use of oil or gas lamps.

In the basement of the main building provision is made for the care of animals. The floors of the several apartments are covered with cement and are inclined to a common drain pipe. The rooms are well ventilated, lighted, and heated, and provided with all necessary facilities for proper sanitation.

On the first floor of the wing adjoining the main building is the main lecture hall, and in the rear of this is the amphitheatre for anatomical demonstrations. In the rear of the amphitheatre is the Anatomical Museum.

On the second floor of the wing are the anatomical laboratories. In the center, and occupying a large part of the floor space, is the main dissecting hall, which has a cement floor and is lighted by six large windows and two skylights. On either side of a short corridor at the front are two private laboratories for special dissections, and at the end of the corridor the two laboratories for the instructors. The latter are entered from the upper hall of the main building. In the rear of the main dissecting hall are the lavatory and locker rooms.

The basement of the wing is divided by a solid brick wall from east to west. On the north of this wall are the storerooms, a photographic room, a room for the refrigerating and gas plants; on the south side are the storage tanks for cadavers, the incinerator, and other arrangements for the care of anatomical material. In the rear end of the basement is an entrance hall containing the elevator and the stairs leading to the amphitheatre and the dissecting hall. The building is heated from the central heating plant and abundantly supplied with water and electric light. The dissecting hall is supplied with hot and cold water.

The laboratories are well equipped with apparatus for the use of the students and the research work of the teachers. Animals are available in adequate numbers for all proper experimental work.

UNIVERSITY ORGANIZATIONS

THE DIALECTIC AND PHILANTHROPIC LITERARY SOCIETIES

The Dialectic and Philanthropic Literary Societies were organized in 1795, the year of the opening of the University. Their existence has been inseparably linked with that of the University, and they have shown remarkable power in developing character as well as in training the intellect. They offer facilities for practice in debate, oratory, declamation, and essay writing; and their members become practically familiar with parliamentary law and usage.

Each society owns a large, handsomely furnished hall, the walls of which are hung with oil portraits of illustrious members. Meetings are held by each society every Saturday evening during the college year, admission being confined to members. Public contests in debate between the two societies are conducted twice a year, and, in addition to these, there is a system of intercollegiate debates. On Monday evening before Commencement the intersociety banquet is held, after which each society has its annual reunion. On Tuesday evening preceding Commencement day four representatives elected from the two societies have a public competition in debate, and a prize is awarded to the successful competitors.

By immemorial custom, students from the eastern half of the State usually join the Philanthropic Society, while those from the western half join the Dialectic Society. Although membership in the societies is entirely optional, yet it is earnestly recommended by the faculty as furnishing unusual opportunities not only for literary culture, but also for the development of self-control and the power to persuade and control others.

ELISHA MITCHELL SCIENTIFIC SOCIETY

James Bell Bullitt, M.D., *President.*

Thomas Felix Hickerson, A.M., *Vice-President.*

Francis Preston Venable, Ph.D., D.Sc., LL.D., *Permanent Secretary.*

John Eliphalet Smith, M.S., *Recording Secretary and Treasurer.*

The Elisha Mitchell Scientific Society holds monthly meetings during the college year for the discussion of scientific subjects. A *Journal,* which is the official organ of the North Carolina Academy of Science, is issued quarterly. The object of the Society is to encourage scientific research and to record such matters as pertain to the natural history of the State. The membership is at present restricted to the faculty and students of the University, and members of the staff of the Geological Survey.

At the monthly meetings, which are ordinarily held on the second Tuesday of each month, excellent opportunities are afforded the students to get beyond the ordinary routine of the classroom by hearing, reading, and discussing papers on scientific subjects.

The *Journal* is in a measure a bulletin of the scientific laboratories of the University, and contains many articles written by research students. It is now in its twenty-seventh year. The volumes already issued contain twenty-five hundred pages. By the exchange of the *Journal* with more than three hundred scientific journals and periodicals, over ten thousand books and pamphlets have been collected, all of which are arranged in the University Library.

THE NORTH CAROLINA HISTORICAL SOCIETY

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph.D., *President.*
SAMUEL JAMES ERVIN, JR., *Secretary.*
JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph.D., *Permanent Secretary.*

The North Carolina Historical Society was founded in 1833 by Governor David L. Swain. When Governor Swain became President of the University, the Society was moved from Raleigh to Chapel Hill. Under his leadership it became the center of historical work in the State and the medium of many notable contributions to the history of the State. On March 22, 1875, through the activity of Kemp Plummer Battle, LL.D., the Society was chartered by an act of the General Assembly. The purpose of the Society is to collect, classify, and publish material illustrative of the history of the State. The Society possesses a valuable collection of books, pamphlets, manuscripts, newspaper files,

coins, and other objects of historic interest. The educational aim of the Society is to create a love for historical study and to give training in scientific methods of historical investigation. To this end meetings are held monthly in the History lecture room, at which papers, based on original research, are read and discussed. At present the Society is devoting its entire attention to the study of county history and to the collection of material bearing upon that subject. All members of the University are eligible for membership.

THE PHILOLOGICAL CLUB

Walter Dallam Toy, M.A., *President.*
Oliver Towles, Ph.D., *Vice-President.*
Henry McCune Dargan, Ph.D., *Secretary.*

The Philological Club meets on the third Tuesday evening of each month during the college year. Its membership consists of the instructors and advanced students in the language departments of the University. The object of the Club is to stimulate original investigation in philology and to afford an opportunity for the interchange of views on subjects relating to such work. At each meeting papers are read and discussed. The Club publishes a journal of four issues a year whose contents are contributed by the members. All persons interested in the work of the Club are invited to attend its meetings.

DER DEUTSCHE VEREIN

The Verein was established for the purpose of stimulating interest among the officers and students of the University in German life. Weekly meetings are held throughout the year, at which the German language only is employed. Subjects of general interest pertaining to German literature, history, social life, and politics are informally discussed. An effort is made to provide students of German with an opportunity to perfect their pronunciation and to improve their control of the spoken language. It is part of the purpose of the Verein to arrange from time to time for public lectures in German. All officers and students of the University interested in the study of German are eligible to membership.

LE CERCLE FRANCAIS

WILLIAM MORTON DEY, Ph.D., *President.*
OLIVER TOWLES, Ph.D., *Permanent Secretary.*

Le Cercle Francais holds weekly meetings at which topics of general interest pertaining to French literature and French life, manners and customs are discussed. The French language is employed exclusively. It is the aim of the club to stimulate interest in the French language, to provide its members with an opportunity to hear idiomatic French spoken, and to use the language with more facility. All officers and students of the University interested in the study of French are eligible to membership.

MUSICAL ASSOCIATION

PRESTON EPPS, *President.*
W. G. MONROE, *Business Manager.*

The aim of the association is to foster the love of music and to afford opportunity of instruction to those interested in music. The organization consists of an orchestra, a brass band, a mandolin and a glee club, which are representative of the musical talent of the University.

THE NORTH CAROLINA CLUB

E. C. BRANSON, M.A., *President.*
S. H. DEVAULT, A.M., *Secretary.*
MARION FOWLER, *Treasurer.*
E. R. RANKIN, A.B., *Chairman Steering Committee.*
R. H. THORNTON, A.M., *Chairman Publicity Committee.*

The North Carolina Club was organized September 25, 1914, in Gerrard Hall. Its purpose is to review, interpret and discuss the economic and social problems of the State. These problems are being explored, county by county, by the County Clubs of the University student body. The scope and details of this volunteer work are set forth in The University Extension Bulletin, No. 9, under the title, Home-County Club Studies. Every other Wednesday night throughout the college year the results of the county club studies come before the North Carolina Club for discussion and debate. The Carolina Club fills a column in the

University News Letter every week. The final aim of the county clubs is a brief bulletin upon the economic and social problems of every county in the State.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

University of North Carolina Branch

Parker Hayward Daggett, S.B., *President.*
Edgar Ivan Staples, S.B., *Secretary.*

The aim of the Branch is to stimulate interest in modern problems in the various fields of electrical engineering, to provide a means for students to discuss in public various questions of a technical nature and to give them an opportunity for practice in thinking on their feet. The Branch meets monthly on the second Friday. The papers consist of original discussions and abstracts of papers presented before the regular Institute meetings. Membership in the Branch is open to all students who are interested in electrical engineering, and all enrolled members receive the regular monthly Proceedings of the Institute.

STUDENT GOVERNMENT

The student body of the University is self-governing. The functions of this government are both disciplinary and constructive. These functions are exercised by the Student Council and the Greater Council, respectively.

The Student Council

F. F. Bradshaw, *Chairman*
J. A. Capps, *Secretary*

Victor Bryant, Jr.	A. H. Wolfe
James Hawfield	L. H. Edwards
Jesse Turlington	Oscar Leach

The Student Council is composed of eight members, as follows: the presidents of the three upper academic classes, one representative from each of the professional schools, one representative elected from the student body at large, and one representative elected by the other seven members of the Council. The member elected by the Council must be chosen from among those who have

served on the Council before. The President of the Senior Class is *ex officio* Chairman of the Council, and the President of the Junior Class, *ex officio* Secretary.

Student government, in so far as it is disciplinary, is based upon the honor system. No code of rules is laid down to direct a student what to do and what not to do. The only standards are those of morality and gentlemanly conduct. The Student Council is the head of the honor system. It is the concrete expression of the moral University. Its members being elected of the students by the students, it is grounded upon, and gives expression to, student sentiment. The Council is not an organization of policemen, nor is it based upon a system of espionage. When any student is felt by his fellow students to be unworthy to remain in the University, the Council takes cognizance of this feeling. It examines the matter, finds the facts in the case, and decides upon the course to be pursued. If the student is found guilty of conduct unworthy of a University man, he is promptly required to withdraw from the University. Among offenses demanding withdrawal may be mentioned drunkenness, cheating on examination, and gambling.

The Greater Council

F. F. Bradshaw, *Chairman*
R. B. House, *Secretary*

Oscar Leach	Jesse Turlington
James Hawfield	L. H. Edwards
A. H. Wolfe	Victor Bryant, Jr.
J. A. Capps	R. F. Crouse
Graham Ramsay	E. L. Mackie
Roy Armstrong	A. M. Coates
R. T. Chatham	William Grimes
C. T. Smith	B. F. Aycock
L. R. Wilson	E. G. Long

The Greater Council is composed of the Student Council (eight men), and in addition two representatives from each of the four academic classes, and one representative each from the Law, Medical, Pharmacy, and Graduate Schools, making in all twenty members. The President of the Senior Class is *ex officio* Chairman of

the Greater Council, and some member of the Council is elected by the Council to serve as Secretary.

As a natural stage in the development of student government the Greater Council came into existence. The Student Council confines its activities to questions relating to discipline. But there are other problems touching the general welfare that need attention. In response to this evident need the Greater Council was organized. It holds stated meetings at which it discusses campus problems and projects plans for constructive work. Constantly there arise questions that seem to be the direct concern of no particular class or organization. To all such general questions the Greater Council turns its attention. It has attempted all sorts of tasks—from improving social conditions on the campus to undertaking and carrying to successful termination a State-wide interscholastic high school track meet. It has come to be an important part of the system of student government.

THE YOUNG MEN'S CHRISTIAN ASSOCIATION

J. M. Parker, *President.*
F. O. Clarkson, *Vice-President.*
Lee H. Edwards, *Treasurer.*
F. F. Bradshaw, *Secretary.*
Thomas C. Boushall, *General Secretary.*
J. A. Warren, *Advisory Treasurer.*

The University Young Men's Christian Association, with its centrally located House as a meeting place and home for the students; with its work for new students; with its social receptions; with its annually published handbook and directory; with its lyceum course; with its support of eight Sunday schools; with its self-help department; with its semi-weekly religious meetings; with its ministerial and missionary clubs; with its large enrollment of men in Bible and mission study, the Young Men's Christian Association through these channels is an organized agency for usefulness and an aggressive force for morality in the University life.

However, "the Young Men's Christian Association may not be viewed," says a member of the faculty, "merely as an institution

for the conduct of mission work, Bible study and religious meetings. Besides these excellent works which it shares with the churches, it is unique as a democratic student organization wholly given up to solving problems of right living. Its energy, sanity, and devotion have made it the most prominent and efficient organization in the college and the most beneficent influence in the life of the college community."

Cabinet

J. M. Parker, Wm. T. Steele, Bible Study; Frank Marsh, Missions; H. G. Hudson, Book Exchange; R. B. House, Religious Meetings; W. C. Rymer, Negro Work and Night School; F. F. Bradshaw, R. M. Stockton, Rural Work and Corn Club; Marion Fowler, Industrial; L. L. Spann, Boy Scouts; J. E. Harris, Music; C. L. Fore, Publicity; J. S. Bryan, Lyceum; Herman Jernigan, Self-help; Fred Deaton, Membership; Herman Jernigan, Jr., Lost and Found; G. C. Royall, Barnett Fund; L. H. Edwards, Finance, and Freshman Continuation.

PART SIX

COMMENCEMENT
LIST OF STUDENTS
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SCHEDULES
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ONE HUNDRED AND TWENTIETH COMMENCEMENT

Sunday, May 30

Baccalaureate Sermon

The Reverend W. D. Moss.

Sermon Before the Young Men's Christian Association

The Reverend G. T. Rowe, D.D.

Monday, May 31

Senior Speakers

Thomas Callendine Boushall
Laughton Bruce Gunter
James Vivian Whitfield
Claude Bernard Woltz

Tuesday, June 1

Alumni Exercises

Reunions of the Classes 1865, 1890, 1895, 1905, 1910, 1914

The Alumni Address

Robert D. W. Connor

The Debate by Representatives from the Dialectic and Philanthropic Literary Societies

Dialectic	*Philanthropic*
Floyd Crouse	Hubert Morse Blalock
Samuel Clark Pike	Thomas Ruffin

Wednesday, June 2

The Commencement Address

Judge A. Mitchell Palmer

DEGREES IN COURSE

Bachelors of Arts

Kenneth Hubert Bailey
Daniel Long Bell
Clarence Ernest Blackstock
Claude Alfred Boseman
Thomas Callendine Boushall
Joseph Shepard Bryan
Edgar Thomas Campbell
Austin Heaton Carr
Wilfong Waldron Clarke
Edwin Fuller Conrad
Howard Clarence Conrad
Alfred Ewing Cummings
Martin Jones Davis
John Tucker Day
Early Dock Edgerton, Jr.
Gurney Edvertt Edgerton
Preston Hershel Epps
Carl Edgar Ervin
George Willard Eutsler
Robert Greeson Fitzgerald
Henry Price Foust
Walter Pliny Fuller
Alfred Long Gaither
Laughton Bruce Gunter
Graham Harden
William Renny Harding
Donald Ryan Harris
Thomas Fuller Hill
Brantson Beeson Holder
George Ricks Holton
Charles Louis Johnston
Edward Yates Keesler
William Clarke Doub Kerr
Wade Kornegay
Gabriel de Lono Lambert
Henry Dionysius Lambert
Albert Anderson Long
Rachel Susan Lynch
Frederick Bays McCall
James Reginald Mallett
Grover Adlai Martin
Baldwin Maxwell
Banks Holt Mebane
George Allen Mebane, Jr.
Charles White Millender
Ophir Carmal Nance
Albert Ray Newsom
Roscoe Edward Parker
Rennie Peel
James Valentine Price, Jr.
William Dossey Pruden, Jr.
William Kirkpatrick Reid
Clarence Robinson
Joseph Vance Rowe
Samuel Floyd Scott
Hudson Claude Sisk
Charles Austin Sloan
Claiborne Thweatt Smith
William Raney Stanford
Alma Irene Stone
George Frederick Taylor
William Raymond Taylor
Albert Thomas Weatherly
James Ralph Weaver
Willie Person Mangum Weeks
Zack Lanier Whitaker
Paul Linwood White
James Vivian Whitfield
John Allen Wilkins
Claude Bernard Woltz
Philip Woollcott
Nathaniel Wright

Bachelors of Science in Chemical Engineering

David Herbert Killeffer
William Nelson Pritchard, Jr.

Bachelors of Science in Civil Engineering

Collier Cobb, Jr.
Bascom Lee Field
Edmund Jones Lilly, Jr.
Thomas Moore Price
Walter Staley Wicker

Bachelor of Science in Electrical Engineering

Leon Maroot Sahag

Bachelors of Science in Medicine

DeWitt Ray Austin
Russell Mills Cox
John Marion McCants
Frank Lafayette Thigpen
Harry Gordon Thigpen
Clifton Forrest West

Bachelors of Laws

Margaret Kollock Berry
John Scott Cansler
James Manly Daniel, Jr.
Augustus Washington Graham, Jr.
Leslie Edward Jones
Lauchlin McNeill
Major Thomas Smith
Matthew Augustus Stroup
Joseph Manson Turbyfill
Seymour Webster Whiting

Graduates in Pharmacy

William Wilson Allen
Fonnie Jackson Andrews
Junius Franklin Andrews
Richard Homer Andrews
Arthur Samuel Cassel
Arthur Levy Fishel
John Leland Henderson
Thomas Ricaud Koonce
Edward Vernon Kyser
Roger Atkinson McDuffie

Pharmaceutical Chemist

Summey Byrd Higgins

Doctors of Pharmacy

Fonnie Jackson Andrews
Richard Homer Andrews
John Leland Henderson

Masters of Arts

Charles Frank Benbow
Allyn Raymond Brownson
James Manly Daniel, Jr.
John Tucker Day
Samuel Henry DeVault
Joshua Lawrence Eason
Willis Caldwell Furr
James Neal Hall
James Albert Highsmith
Branston Beeson Holder
Gabriel de Lono Lambert
Henry Dionysius Lambert
Arnold Artemus McKay
Baldwin Maxwell
Carlos Monroe Moore
Roscoe Edward Parker
Walter Rea Parker
Eldred Oscar Randolph
Daniel Lamont Seckinger
Charles Lawrence Woodall, Jr.
Fred Roy Yoder

Masters of Science

John Wesley McIver Malcolm Norval Oates

Doctors of Philosophy

Victor Clyde Edwards William Lewis Jeffries

HONORARY DEGREES

Doctors of Laws

Locke Craig Furnifold McLendon Simmons
James Sprunt

MEDALS, PRIZES, AND FELLOWSHIPS

The William Cain Prize in Mathematics: G. W. Smith.
The Eben Alexander Prize in Greek: F. F. Bradshaw.
The Worth Prize in Philosophy: B. H. Mebane.
The Early English Text Society Prize: W. R. Taylor.
The Henry R. Bryan Prize in Law: S. W. Whiting.
The Hunter Lee Harris Memorial: S. R. Newman.
Prizes in North Carolina Colonial History: first, F. H. Cooper; second, S. J. Ervin.
The Callaghan Scholarship Prize in Law: A. W. Graham, Jr.
The LeDoux Fellowship in Chemistry: C. B. Carter.
The LeDoux Fellowship in Chemistry: V. A. Coulter.
Fellowship in Mathematics: G. W. Smith.
The W. J. Bryan Prize in Political Science: G. W. Bradshaw.
The Ben Smith Preston Cup: R. C. Vaughn.
The Freshman Prize in English: J. A. Holmes, Jr.
The Bingham Prize: S. C. Pike.
The Mangum Medal: C. V. Woltz.

Elected to membership in *Phi Beta Kappa Society*, 1914: A. R. Newsom, W. R. Taylor, C. A. Boseman, B. L. Field, R. G. Fitzgerald, E. Y. Keesler, W. P. M. Weeks, R. B. House, J. H. Allred, B. F. Auld, F. F. Bradshaw, P. H. Epps, C. A. Holland, H. G. Hudson, G. M. Long, L. G. Marsh, W. E. Pell, W. B. Pitts, R. C. Vaughn.

CERTIFICATES

Economics: D. L. Bell, J. T. Day, J. F. Hackler, G. deL. Lambert.
Education: C. E. Blackstock, J. T. Day.
English: C. A. Boseman, R. E. Parker, W. R. Taylor.
French: W. C. D. Kerr, J. A. Wilkins.
German: R. G. Fitzgerald, W. C. D. Kerr, W. R. Stanford.
Greek: P. H. Epps.
History: A. R. Newsom.

STUDENTS (1915-1916)

Graduates

Allred, Joseph Henry, Mount Airy.
English, German. Candidate for A.B. and A.M.

Anderson, Andrew Vance, Eagle Rock.
Economics, History. Candidate for A.B. and A.M.

Andrews, Troy Monroe, Chapel Hill.
A.B., 1914. Chemistry, Geology. Candidate for S.B. in Chemical Engineering.

Arnette, John Madison, Mebane.
A.B., 1902, Wake Forest College. Rural Economics, Philosophy. Candidate for Ph.D.

Boushall, Thomas Callendine, Raleigh.
A.B., 1915. Romance Languages, English, History. Candidate for A.M.

Carter, Carnie Blake, Morganton.
S.B., 1913; S.M., 1914. Chemistry, Physics, Geology. Candidate for Ph.D.

Collins, Hubert Walter, Holly Springs.
S.B., 1914. Mathematics, Economics, Geology. Candidate for A.M.

Cooper, Frank Hodges, Washington.
English, History. Candidate for A.B. and A.M.

Coulter, Victor Aldine, Newton.
S.B., 1913; S.M., 1914. Chemistry, Physics, Mathematics. Candidate for Ph.D.

Davis, Martin Jones, Warrenton.
A.B., 1915. Geology, Botany, Chemistry. Candidate for A.M.

DeVault, Samuel Henry, Jonesboro, Tenn.
A.B., 1912, Carson and Newman College; A.M., 1915. Economics, Education.

Dobbins, Charles Nelson, Yadkinville.
Geology, Civil Engineering, Botany. Candidate for A.B. and A.M.

Epps, Preston Herschel, Durham.
A.B., 1915. English, Greek. Candidate for A.M.

Genes, Samuel Alfred, Fayetteville.
A.B., 1913, Wofford College. English, French. Candidate for A.M.

Goldston, Walter Leon, Jr., Goldston.
Geology, Botany. Candidate for A.B. and A.M.

Goode, Seddon, Jr., Clinton.
History, Economics, Rural Economics. Candidate for A.B. and A.M.

Harper, James Cuningham, Lenoir.
S.B., 1915, Davidson College. Economics, Rural Economics, History. Candidate for A.M.

Harvey, John, Jr., Snow Hill.
B.E., 1914, N. C. College of Agriculture and the Mechanic Arts. Chemistry, Zoology, Botany, German.

Hester, Hugh Bryan, Hester.
History, Philosophy, Economics. Candidate for A.B. and A.M.

Hoke, Clarence Ballew, Lenoir.
S.B., 1913. Chemistry, Geology, Economics. Candidate for S.M.

House, Robert Burton, Thelma.
English. Candidate for A.B. and A.M.

Huff, Joseph Bascom, Mars Hill.
A.B., 1903, Wake Forest College; A.M., 1904. English, French. Candidate for Ph.D.

Jernigan, Herman, Benson.
English. Candidate for A.B. and A.M.

Keesler, Edward Yates, Charlotte.
A.B., 1915. Electrical Engineering, Civil Engineering, Mathematics. Candidate for S.M.

Long, Edgar, Chapel Hill.
A.B., 1911, Erskine College. English. Candidate for A.M.

McGhee, Vann Ward, Leicester.
Education, Economics. Candidate for A.B. and A.M.

Masterson, John Riley, Beaumont, Tex.
A.B., 1915, East Texas Normal College. Education, Philosophy, Economics. Candidate for A.M.

Merten, Horace George, Chapel Hill.
A.B., 1913, Morningside College; A.M., 1914, University of Chicago. English. Candidate for Ph.D.

Momiyama, Hiroshi, Koriyama, Japan.
A.B., 1912, Waseda University. Economics, Rural Economics, History. Candidate for A.M.

Moss, William Dygnum, Chapel Hill.
A.B., 1890, McGill University.

Patten, Walter, Chapel Hill.
A.B., 1907, Wesleyan University. Philosophy, Rural Economics, Education. Candidate for A.M.

Rankin, William Walter, Jr., Chapel Hill.
B.E., 1904, N. C. College of Agriculture and Mechanic Arts; A.M., 1912. Mathematics, Physics, Education. Candidate for Ph.D.

Smith, William Robert Lee, Chapel Hill.
A.B., 1871, Cumberland University. Philosophy.

Starr, Homer Worthington, Chapel Hill.
B.A., 1900, Harvard University; M.A., 1901, The University of the South; Ph.D., 1914. Philosophy.

Totten, Henry Roland, Yadkin College.
A.B., 1913; A.M., 1914. Botany, Zoology, Geology. Candidate for Ph.D.

Turlington, Edgar Willis, Mount Airy.
A.B., 1911; B.A., 1913, and B.C.L., 1914, Oxford University (England). English. Candidate for Ph.D.

Senior Class

Allred, Joseph Henry,	Arts,	Mount Airy.
Anderson, Andrew Vance,	Arts,	Eagle Rock.
Auld, Benjamin Franklin,	Arts,	Baltimore, Md.
Bailey, Herbert Victor,	Arts,	Neuse.
Black, Hoke Barrymore,	Arts,	Greenville, S. C.
Blaine, James Cornaro,	Arts,	Franklin.
Blue, Luther Avon, Jr.,	Arts,	Wilmington.
Borden, Edwin Brownrigg,	Arts,	Goldsboro.
Bradshaw, Francis Foster,	Arts,	Hillsboro.
Capehart, William Jonathan,	Arts,	Roxobel.
Castelloe, Allen Thurman,	Arts,	Aulander.

Clarkson, Francis Osborne,	Arts,	Charlotte.
Cobb, William Borden,	Arts,	Goldsboro.
Cooper, Frank Hodges,	Arts,	Washington.
Cooper, George Herman,	Arts,	China Grove.
Crouse, Rush Floyd,	Arts,	Nile.
Cuthrell, Hugh Hamlin,	Arts,	Winston-Salem.
Daniel, Charles Rufus,	Arts,	Weldon.
Darden, Douglas Beaman,	Arts,	Fremont.
Deaton, Fred Hyams,	Arts,	Statesville.
Dobbins, Charles Nelson,	Arts,	Yadkinville.
Dysart, John Overton,	Arts,	Lenoir.
Edwards, Lee Henry,	Arts,	Holly Springs.
Egerton, Graham Burwell,	Arts,	Louisburg.
Farmer, Leslie James,	Arts,	Wilson.
Fore, Clyde Lathrop,	Science,	Charlotte.
Goldston, Walker Leon, Jr.,	Arts,	Goldston.
Goode, Seddon, Jr.,	Arts,	Clinton.
Hall, Lucius Coleman,	Science,	Webster.
Hardison, James Archibald, Jr.,	Arts,	Wadesboro.
Harris, Joseph Johnson,	Arts,	Bunn.
Harrison, James Leftwich,	Arts,	Raleigh.
Hester, Hugh Bryan,	Arts,	Hester.
Hobbs, Samuel Huntington, Jr.,	Arts,	Clinton.
Holland, Curtis Avent,	Arts,	Greensboro.
Homewood, Roy McRae,	Science,	Burlington.
House, Robert Burton,	Arts,	Thelma.
Hudson, Hinton Gardner,	Arts,	Smithfield.
Hughes, Clinton Kelly,	Arts,	Asheville.
Hunter, Wade Russell,	Arts,	Alexander.
Huske, John Manning,	Arts,	Fayetteville.
Jernigan, Herman,	Arts,	Benson.
Johnson, Herschel Vespasian,	Arts,	Charlotte.
Jones, John Haywood,	Arts,	New Bern.
Joyner, Edward Gray,	Arts,	Littleton.
Joyner, William Henry,	Science,	Princeton.
Kent, John Archelaus,	Arts,	Lenoir.
Kirk, William Wilson,	Arts,	Jacksonville, Fla.
Lewis, McDaniel,	Arts,	Kinston.
Linn, Thomas Calvin, Jr.,	Arts,	Salisbury.
Long, Giles Mebane,	Arts,	Charlotte.
McGhee, Vann Ward,	Arts,	Leicester.
Marsh, Luther Grier,	Arts,	Marshville.
Miller, Harry,	Arts,	Stony Point.
Moore, James Roy,	Arts,	Lenoir.
Morris, Carlyle,	Arts,	New Bern.

Norris, Frank Wisconsin,	Arts,	Jacksonville, Fla.
Page, Robert Newton, Jr.,	Arts,	Biscoe.
Parker, John Merrel,	Arts,	Bradentown, Fla.
Patterson, Hazel,	Science,	Burlington.
Pell, William Edward,	Arts,	Raleigh.
Pickett, Oscar Asa,	Science,	Durham.
Pike, Samuel Clark,	Arts,	Liberty.
Pitts, William Barney,	Arts,	Charlotte.
Procter, William Isaac,	Arts,	Raleigh.
Royall, George Claiborne, Jr.,	Arts,	Goldsboro.
Royster, Beverly Sampson, Jr.,	Arts,	Oxford.
Shuford, Norman Clifford,	Arts,	Fairview.
Siddall, Roger Shore,	Arts,	Sumter, S. C.
Smith, George Wallace,	Science,	Wilmington.
Smith, Hubert McCree,	Arts,	Hendersonville.
Smith, William Oliver,	Arts,	Raleigh.
Thorp, Adam Treadwell,	Arts,	Rocky Mount.
Umstead, William Bradley,	Arts,	Bahama.
Walke, William Capehart,	Science,	Avoca.
Walton, Basil Manly,	Arts,	Morganton.
Watson, Eleanor,	Arts,	Salisbury.
Welch, Robert Henry Winborne, Jr.,	Arts,	Hertford.
Williams, Marshall McDairmid, Jr.,	Science,	Faison.
Wood, Fred Philips,	Art,	Edenton.

Junior Class

Allen, William Reynold, Jr.,	Arts,	Goldsboro.
Allred, Frank Ewing,	Arts,	Aberdeen.
Austin, William Bryant,	Arts,	Laurel Springs.
Bacon, Edward Onslow,	Arts,	Newton.
Baity, Herman Glenn,	Arts,	Harmony.
Barber, Lawrence Corbin,	Science,	Asheville.
Barnard, James Carl,	Arts,	Franklin.
Barnes, Troy Thomas,	Arts,	Lucama.
Barnes, William Braddy,	Arts,	Lucama.
Brooks, Robert Plato, Jr.,	Science,	Woodsdale.
Capps, James Arthur,	Arts,	Bessemer City.
Carter, David Vance,	Arts,	Liberty.
Combs, Alvah Haff,	Arts,	Columbia.
Cowan, James Gerald,	Arts,	Asheville.
Crawford, Farrell Moffatt,	Arts,	Cornelia, Ga.
Crowell, Gordon Bryan,	Arts,	Lincolnton.
Dail, Ernest James,	Arts,	Kenansville.
Dalton, Wilson Bitting,	Arts,	Winston-Salem.
Daniels, Charles Cleaves,	Arts,	Minneapolis, Minn.

Devereux, Robert Eddens,	Arts,	Spencer.
Dobbin, Edgar Alexander,	Arts,	Legerwood.
Duncan, Early Edward Walters,	Arts,	Woodsdale.
Eagle, Daniel Eugene,	Arts,	Statesville.
Edney, Calvin Ransome,	Arts,	Mars Hill.
Edwards, David Nesbit,	Arts,	Ronda.
Eldridge, John Grady,	Arts,	Bentonville.
Elliott, Aubrey McCoy,	Arts,	Columbia, S. C.
Elsom, Floyd Howard,	Science,	Hendersonville.
Ervin, Samuel James, Jr.,	Arts,	Morganton.
Ferguson, Clyde Vestal,	Arts,	Teer.
Forney, Adger Carter,	Science,	Greensboro.
Fowler, Marion Butler,	Arts,	Hillsboro.
Ginn, Russell Leonard,	Arts,	Goldsboro.
Goforth, Osborne LeRoux,	Arts,	Durham.
Gryder, Coffey Harlan,	Arts,	Taylorsville.
Gwaltney, Leroy Parks, Jr.,	Arts,	Stony Point.
Hale, Joseph Watkins,	Science,	Louisburg.
Hardison, Joseph Hammond,	Science,	Fayetteville.
Harper, Henry Green, Jr.,	Arts,	Charlotte.
Harrell, Beeman Clifford,	Arts,	Marshville.
Harris, Charles Spurgeon,	Arts,	Sulphur Springs.
Harris, Julian Earle,	Arts,	Henderson.
Harriss, Robert Burton,	Arts,	Greensboro.
Herman, Emory Cline,	Arts,	Conover.
Higgins, Charles William,	Science,	Greensboro.
Hill, John Bright,	Arts,	Warsaw.
Hodgin, DeVane,	Arts,	Greensboro.
Hogan, Ernest Glen,	Arts,	Chapel Hill.
Holbrook, John McCraven,	Arts,	Huntersville.
Holloway, Jackson Kenneth,	Arts,	Raleigh.
Howell, William Frederick,	Arts,	Goldsboro.
Huff, Herbert Henry,	Arts,	Soudan, Va.
Hunter, Harry Grimmett,	Arts,	Hendersonville.
Hyatt, Carl Britt,	Arts,	Burnsville.
Ingram, Hal Burkhead,	Science,	High Point.
Isley, Roy Bynum,	Science,	Burlington.
Jones, Thomas Atkinson,	Arts,	Asheville.
Jones, Zebulon Baird Vance,	Arts,	Swan Quarter.
Jordan, Francis Cameron,	Arts,	Greensboro.
Kendall, Everett Allan,	Arts,	Pleasant Garden.
Kendrick, Frank Erwin,	Arts,	Dillon, S. C.
King, James Edwin,	Arts,	Pelham.
Lassiter, James Horace,	Arts,	Rich Square.
Lindau, Alfred Milton,	Science,	Greensboro.

Love, James Franklin,	Arts,	Lincolnton.
McCurry, Clifford Handy,	Arts,	Daybook.
McLeod, James Carlisle,	Arts,	Florence, S. C.
Mackie, Ernest Loyd,	Arts,	Guilford College.
Mann, George Weaver,	Arts,	Franklin.
Markham, Blackwell,	Arts,	Durham.
Merritt, Oscar von Kochtitzky,	Science,	Mount Airy.
Miller, Clyde Caswell,	Arts,	Todd.
Mock, Henry Bascom,	Arts,	Pfafftown.
Nims, Frederick Borden,	Arts,	Mount Holly.
Norwood, George McIntosh,	Arts,	Goldsboro.
O'Brient, Earl James,	Science,	Durham.
Parker, George Farrar,	Arts,	Asheville.
Parker, Samuel Iredell,	Arts,	Monroe.
Patton, James Ralph, Jr.,	Arts,	Durham.
Peirce, John Miller,	Arts,	Warsaw.
Perdew, John William,	Arts,	Wilmington.
Perry, Ely Jackson,	Arts,	Kinston.
Pickard, Minna Thelma,	Arts,	Chapel Hill.
Polk, William Tannahill,	Arts,	Warrenton.
Proctor, Edward Knox,	Arts,	Lumberton.
Ramsay, James Graham,	Arts,	Salisbury.
Rand, Oliver,	Arts,	Smithfield.
Randolph, Marion Herbert,	Arts,	Charlotte.
Ranson, John Oliver,	Arts,	Huntersville.
Reasoner, Norman Anderson,	Arts,	Oneco, Fla.
Reed, Walter Marion,	Arts,	Fairview.
Reid, John Calvin,	Arts,	High Rock.
Robinson, Marius Emmett, Jr.,	Arts,	Goldsboro.
Ross, Robert Marion, Jr.,	Arts,	Shelby.
Rymer, William Cecil,	Arts,	Hendersonville.
Shamburger, Frank Dudley,	Arts,	Biscoe.
Sharpe, Howard D.,	Arts,	Stony Point.
Shipp, Fabius Busbee,	Arts,	Raleigh.
Siddall, Bernard Andrew,	Arts,	Sumter, S. C.
Sloan, Clyde Neely,	Science,	Charlotte.
Slover, George,	Science,	New Bern.
Smith, John Leroy,	Arts,	Chapel Hill.
Smithey, Sherman Bryan,	Arts,	Wilkesboro.
Sparger, Randall Worth,	Science,	Mount Airy.
Stell, John Spencer,	Arts,	Raleigh.
Strange, Thomas Wright,	Science,	Wilmington.
Suddreth, Willis Clyde,	Arts,	Lenoir.
Teague, Everette Simon,	Arts,	Taylorsville.
Telfair, Samuel Fowle, Jr.,	Arts,	Raleigh.

Tennent, George Raby,	Science,	Asheville.
Thayer, Robert Wingate,	Arts,	Trinity.
Thorp, Lewis Sumner,	Arts,	Rocky Mount.
Travis, Edward Llewellyn, Jr.,	Arts,	Halifax.
Veasey, Elbert Lambert,	Arts,	Stem.
Watkins, Robert Young,	Arts,	Thomasville.
Watson, William Randolph, Jr.,	Arts,	Darlington, S. C.
Wellons, Wilber Freeman,	Arts,	Selma.
Williams, Macon McCorkle,	Science,	Newton.
Williams, Virginius Faison,	Arts,	Faison.
Wright, James Thomas Carr,	Arts,	Hunting Creek.
Wright, Robert Hazlehurst, Jr.,	Science,	Nashville, Tenn.
Wright, Theodore Oran,	Arts,	Pleasant Garden.
Yarborough, Robert Samuel,	Arts,	Lexington.

Sophomore Class

Andrews, Ezra Preston,	Science,	Charlotte.
Andrews, Ralph Preston,	Arts,	Chapel Hill.
Armstrong, Ray,	Arts,	Belmont.
Arnold, Duma Carroll,	Science,	Neuse.
Bailey, William, Jr.,	Arts,	Raleigh.
Baker, Maurice Edward,	Science,	Lawndale.
Ballew, Ralph Dewey,	Science,	Hickory.
Barton, Russell Pratt,	Arts,	Hartford, Conn.
Bird, William Ernest,	Arts,	Whittier.
Black, Hugh Clifton,	Arts,	Greenville, S. C.
Blanton, Lawton,	Arts,	Shelby.
Bolick, Clarence Pinkney,	Science,	Morganton.
Bowers, William Jesse,	Arts,	Washington.
Boyett, Clenon Festus,	Arts,	Smithfield.
Bryant, Victor Silas, Jr.,	Arts,	Durham.
Burgess, William Grady,	Arts,	Shelby.
Butt, Israel Harding,	Arts,	Hope Mills.
Campbell, Milton Clyde,	Arts,	Taylorsville.
Carr, Leo,	Arts,	Teachey.
Clark, Harold Stevens,	Arts,	Leicester.
Coates, Albert McKinley,	Arts,	Smithfield.
Cohn, Frederick Jacob,	Science,	New Bern.
Cole, Bennett Columbus,	Arts,	High Rock.
Conyers, William Priestley, Jr.,	Arts,	Greenville, S. C.
Cooper, Elliott Tunstall,	Arts,	Oxford.
Cox, Harvey Atkinson,	Arts,	Southern Pines.
Craig, Thomas James,	Arts,	Monroe.
Crowell, Rupert Johnson,	Science,	Acton.
Currie, Claude,	Arts,	Candor.

Dail, George Robert,	Science,	Kenansville.
Davis, Charles Walker,	Arts,	Hillsboro.
Deaton, Frank,	Arts,	Statesville.
Denning, Wade Fulton,	Science,	Albemarle.
deRosset, Robert Cowan, Jr.,	Arts,	Wilmington.
Dewar, William Banks,	Science,	Raleigh.
Dimmick, Graham Bennett,	Arts,	Sanford.
Duncan, Elliott Florence,	Arts,	Mayodan.
Eagle, Watt Weems,	Arts,	Statesville.
Eaton, Paul Blaine,	Arts,	Yadkinville.
Edwards, John Robert,	Arts,	Ore Hill.
Erwin, William Allen, Jr.,	Arts,	Durham.
Farthing, Fred Robert,	Arts,	Boone.
Faucette, Holt Pebbin,	Science,	Grimesland.
Fonvielle, John Hadley,	Arts,	Warsaw.
*Gallant, Alexander Gary,	Science,	Charlotte.
Garrett, Robert Urey, Jr.,	Science,	Asheville.
Giles, Isaac Vilas,	Science,	Fonta Flora.
Goley, Willard Coe,	Arts,	High Point.
Goode, Henry Grady,	Arts,	Connelly Springs.
Graham, Burton McKinnon,	Science,	Rowland.
Griffin, Elbert Alonzo,	Science,	Goldsboro.
Groves, Earl Elmer,	Arts,	Gastonia.
Gudger, Henry Clarence,	Science,	Asheville.
Gwynn, John Minor,	Arts,	Leaksville.
Harrison, Thomas Perrin, Jr.,	Arts,	Raleigh.
Hatcher, Matthew James,	Arts,	Mount Olive.
Hatsell, Atticus Haygood,	Science,	Hubert.
Herty, Charles Holmes, Jr.,	Science,	Chapel Hill.
Hill, Edward Ashton,	Arts,	Winston-Salem.
Hines, Samuel Phillip,	Arts,	Kinston.
Holding, Clem Bolton,	Arts,	Raleigh.
Holding, Graham Davis,	Arts,	Raleigh.
Hooks, Bennett,	Arts,	Fremont.
Hooper, Zebulon Vance,	Science,	Elizabeth City.
Horsfield, Basil Tourneur,	Science,	Oxford.
Horton, Hamilton Cowles,	Science,	Winston-Salem.
Hunter, William Fred,	Arts,	Pittsboro.
Ivey, Douglas Stimson,	Arts,	Dillon, S. C.
Jennette, William Carl,	Science,	Goldsboro.
Jobe, Levi Haywood,	Arts,	Mebane.
John, Frank Bell,	Arts,	Laurinburg.
Johnson, George Washington,	Science,	Wallace.
Johnson, John Gray,	Science,	Lynchburg, Va.
Joines, Aaron Oscar,	Arts,	Stratford.

*Died 21 February, 1916.

Kato, Kameichi,	Arts,	Takatamura, Japan.
Kimball, Durelle Boyd, Jr.,	Arts.	Henderson.
King, Charles Banks, Jr.,	Arts.	Charlotte.
Kinlaw, William Bernard,	Science.	Rocky Mount.
Kirkman, William Robert,	Arts,	Greensboro.
Koonts, Henry Valentine,	Arts,	Mount Ulla.
Koonts, Raymond Ray,	Arts,	Mount Ulla.
Landis, Clinton Brace,	Arts,	Marion.
Latta, Eric Amos,	Arts,	Lyons.
Leatherwood, Dennis Bryan,	Arts,	Waynesville.
Lewis, Meriweather,	Science,	Kinston.
Linker, Joe Burton,	Arts,	Salisbury.
Lyday, Russell Osborne,	Science,	Penrose.
Lynch, Peter Francisco,	Arts,	Raleigh.
McClamrock, Roland Prince,	Science,	Greensboro.
McIver, Duncan Evander,	Arts,	Sanford.
McMichael, John Earle,	Arts,	Wentworth.
McMillan, William Dougald, Jr., 3d,	Arts,	Wilmington.
Madry, Robert Wilson,	Arts,	Scotland Neck.
Marsh, Herman Earl,	Arts,	Marshville.
Marsh, William Edward,	Science,	Aulander.
Mason, Manly,	Arts,	Atlantic.
Massey, Moulton Braxton,	Arts,	Princeton.
Matthews, William Elmer,	Arts,	Clinton.
Meredith, Benjamin Lacy,	Science,	New Bern.
Monroe, William Galpin,	Science,	Wilmington.
Montgomery, James Erwin,	Arts,	Burlington.
Morgan, Eli John,	Science,	Benson.
Morris, George Dillon,	Arts,	Goldsboro.
Morrison, William Fred,	Science,	Statesville.
Neely, Wade Swann,	Arts,	Charlotte.
Neiman, Ernest,	Arts,	Charlotte.
O'Briant, Albert Lee,	Science,	Timberlake.
Oettinger, Albert,	Arts,	Wilson.
Parks, Ralph Weaver,	Science,	Statesville.
Patton, John William,	Arts,	Murphy.
Perry, Henry Hilman,	Science,	Belvidere.
Pfaff, Claude Rufus,	Arts,	Pfafftown.
Price, Rolland Ernest,	Arts,	Ellenboro.
Prince, Hugh Williamson,	Arts,	Dunn.
Prophit, Clarence Alston,	Arts,	Monroe, La.
Pruett, Charles Jacob,	Arts,	Chapel Hill.
Quevedo, Manuel Gonzales, Jr.,	Science,	Union de Reyes, Cuba.
Rand, Walter,	Arts,	Smithfield.
Ravenel, Samuel Fitzsimons,	Arts,	Green Pond, S. C.

Reid, Samuel Leslie,	Arts,	Lowell.
Rendleman, David Atwell,	Arts,	Salisbury.
Riggs, Robert Hamilton,	Arts,	Dobson.
Rimmer, Ralph Horton,	Science,	Hillsboro.
Robbins, Marvin Russell,	Arts,	Rocky Mount.
Rountree, Moses,	Arts,	Oxford.
Sawyer, J. P.,	Science,	Asheville.
Schenck, Sam Moore,	Science,	Lawndale.
Schwartz, Isaac,	Arts,	Raleigh.
Scott, Byron Carlisle,	Science,	Charlotte.
Sedberry, Chesley,	Arts,	Wadesboro.
Smith, George Blackwell, Jr.,	Science,	Capron, Va.
Smith, Walter Pleasant,	Arts,	Burlington.
Smithey, Ira Wellborn,	Science,	Wilkesboro.
Snoddy, Charles Edison,	Arts,	Mount Airy.
Spann, Lewis Lester,	Arts,	Granite Falls.
Spencer, Edward Lee,	Arts,	Lenoir.
Spencer, Rebert Baxter,	Arts,	Hobucken.
Steele, William Trabue,	Arts,	Nashville, Tenn.
Stephenson, William Hermas,	Arts,	Raleigh.
Stevens, Henry Leonidas, Jr.,	Arts,	Warsaw.
Stockton, Ralph Madison,	Arts,	Winston-Salem.
Stokes, Thomas Dodds,	Arts,	Ruffin.
Stuckey, Jasper Leonidas,	Arts,	Kenly.
Tandy, George Wendall,	Arts,	Jacksonville, Ill.
Tanner, Simpson Bobo, Jr.,	Arts,	Charlotte.
Tatum, Walter Spurgeon,	Arts,	Todd.
Tayloe, John Cotten,	Science,	Washington.
Tennent, Charles Gaillard,	Arts,	Asheville.
Terry, Edgar Burton, Jr.,	Arts,	Rockingham.
Terry, John Skally,	Science,	Rockingham.
Thompson, Franklin,	Science,	Jacksonville.
Upchurch, Lonnie Milton,	Arts,	New Hill.
Warrick, Ed.,	Arts,	Sioux.
Webb, Charles Bruce,	Arts,	Asheville.
Weeks, Hassell Howard,	Arts,	Rocky Mount.
Wilkins, Thomas Clingman,	Arts,	Rose Hill,
Williams, Coy Reitzell,	Arts,	Graham.
Wilson, Henry Van Peters, Jr.,	Arts,	Chapel Hill.
Wilson, John Thomas,	Arts,	Rural Hall.
Wilson, Virgil Angelo,	Arts,	Pfafftown.
Wood, John Oscar,	Arts,	East Laport.
Woodard, Clement Manly,	Arts,	Whartonsville.
Woodley, Samuel Spruill,	Arts,	Creswell.
Woodward, Jake Garrett,	Arts,	Democrat.

Woody, Iredell Winfred,	Arts,	Gray.
Wooten, Floyd Pugh,	Science,	Kinston.
Wrenn, Lucien Patterson,	Arts,	Mount Airy.
Yelverton, William Bayard,	Science,	Goldsboro.
York, William Marvin,	Arts,	High Point.
Young, Marvin Pleasant,	Arts,	Spencer.
Young, Richard Leonidas,	Arts,	Charlotte.

Freshman Class

Anderson, William Banks,	Arts,	Haw River.
Andrews, Ernest Frank,	Arts,	Speed.
Arrowood, Fred Monroe,	Arts,	Bessemer City.
Austin, Meak Ervin,	Arts,	Monroe.
Aycock, John Lee,	Arts,	Raleigh.
Aycock, Thomas Bayron,	Science,	Pikeville.
Baker, Hugh Daniel, Jr.,	Arts,	Rocky Mount.
Banks, Clyde Gerard,	Arts,	Raleigh.
Banks, Hubert Cyrus,	Arts,	Grantsboro.
Banner, Allan Carithers,	Science,	Mount Airy.
Barber, Benjamin Ervin,	Arts,	Carthage.
Barber, Joseph Marshal,	Arts,	Raleigh.
Barden, Graham Arthur,	Arts,	Burgaw.
Barrow, Howard Lindsay,	Arts,	Raleigh.
Bason, Samuel Murphy,	Arts,	Swepsonville.
Battle, Hyman,	Science,	Rocky Mount.
Beal, James Robert,	Arts,	Timberlake.
Bell, Frank Durham,	Arts,	Tuxedo.
Bellamy, Hargrove,	Arts,	Wilmington.
Bigham, Henry Porter,	Arts,	Pineville.
Blackwelder, Buford William,	Arts,	Concord.
Bland, William Benjamin,	Arts,	Burgaw.
Boling, Roy Wingate,	Arts,	Apex.
Boren, Norman Addison,	Arts,	Pomona.
Boyd, William Roberts,	Science,	New Bern.
Bracy, Clarence,	Arts,	Rowland.
Brake, Richard Ralph,	Arts,	Rocky Mount.
Brinn, Thomas Preston,	Arts,	Hertford.
Brinson, William George,	Science,	Asheville.
Bryan, Lynwood Sessums,	Arts,	Oxford.
Burdick, Edmund Justin,	Arts,	Asheville.
Burnett, Thomas Lewis,	Science,	Jacksonville, Fla.
Burton, Chester Winthrop,	Science,	Pomona.
Butler, Silas Watson,	Science,	Rowland.
Bynum, Jefferson Courtney,	Science,	West Durham.
Cadelle, John Ray,	Arts,	Maxton.

Calvert, Samuel James,	Arts,	Jackson.
Campbell, Harvey James,	Arts,	Burlington.
Carroll, Adrian Meredith,	Arts,	Burlington.
Carswell, Guy Thomas,	Arts,	Glen Alpine.
Chatham, Richard Thurmond,	Arts,	Winston-Salem.
Churchill, Guy Willard,	Science,	Kinston.
Clarvoe, Frank Auld,	Arts,	Philadelphia, Pa.
Clayton, Theodore Shackleford,	Science,	Penrose.
Cobb, Donnell Borden,	Science,	Goldsboro.
Colvard, George Todd,	Science,	Jefferson.
Conger, Joseph Harold,	Science,	Edenton.
Conoly, John Leslie,	Arts,	Shannon.
Cooper, David Alexander,	Science,	Henderson.
Councill, Gordon Stuart,	Arts,	Hickory.
Courtney, John Arthur,	Arts,	Lenoir.
Craig, Herbert Bingham,	Science,	Mebane.
Craig, William Gilbert,	Arts,	Blackwood.
Crisp, Alfred Reese,	Arts,	Collettsville.
Crissman, Curtis Franklin,	Arts,	Siloam.
Culp, James Edward,	Science,	Charlotte.
Cummings, Edmund Olin,	Arts,	High Point.
Currie, Edgar Dudley,	Arts,	Old Hundred.
Currie, Ralph Publius,	Science,	Candor.
Currie, Wilbur Hoke,	Arts,	Carthage.
Cuthbertson, William Reynolds,	Science,	Charlotte.
Dale, Grover Cleveland,	Arts,	Seven Springs.
Dalton, John Webber,	Arts,	Cliffside.
Davenport, Charles Norman,	Science,	Creswell.
Davis, Harry Towles,	Arts,	Beaufort.
Dawson, Thomas Pugh,	Science,	Conetoe.
Dickerson, Mark Overton, Jr.,	Arts,	Rutherfordton.
Dixon, McDonald,	Arts,	Edenton.
Dortch, Hugh,	Arts,	Goldsboro.
Dudley, David Wilbur,	Science,	Comfort.
Durham, Irvin Webb, Jr.,	Arts,	Charlotte.
Eason, Hubert,	Arts,	Gatesville.
Eaton, Jesse Clifton,	Arts,	Winston-Salem.
Eaton, William Clement,	Arts,	Winston-Salem.
Edmundson, Paul Burt,	Science,	Goldsboro.
Edwards, Joseph Garnett,	Arts,	Galax, Va.
Eldridge, Young Wyley,	Arts,	Bentonville.
Eley, Vernon Lyndon,	Science,	Richmond, Va.
Elliott, Edgar Torrence, Jr.,	Arts,	Dillon, S. C.
Erwin, Clyde Atkinson,	Arts,	Waco.
Evans, Harvey Luther,	Arts,	Lexington.

Feimster, Walter Connor, Jr.,	Arts,	Newton.
Ferebee, David Willoughby,	Arts,	Reelsboro.
Ferebee, Samuel Williams,	Arts,	New Bern.
Ficklen, James Skinner,	Arts,	Greenville.
Fitzsimons, Edward Owen,	Arts,	Charlotte.
Folsom, Theodore Winslow,	Science,	Swannanoa.
Foreman, Thomas Alexander,	Science,	Albemarle.
Foster, John Wesley,	Science,	Cool Spring.
Foster, Robert Pleasant, Jr.,	Arts,	Asheville.
Funderburk, Lee Edward,	Science,	Matthews.
Gant, Cecil,	Science,	Burlington.
Gantt, Clarence Alexander,	Arts,	Fallston.
Garvey, William Winfield,	Science,	Beaver Creek.
Gay, Archibald Cree,	Arts,	Jackson.
Gay, Jeremiah,	Arts,	Jackson.
Gibson, John Mendinghall,	Arts,	Gibson.
Gibson, Thomas Guthrie,	Arts,	Gibson.
Giles, Ernest Neal,	Arts,	Glen Alpine.
Gilmore, John Charles,	Arts,	Fayetteville.
Glenn, Willis Moton,	Arts,	Fallston.
Gooch, Oley Presler,	Science,	Chapel Hill.
Gooding, Nathan Green,	Arts,	New Bern.
Graham, Gregory Nowell,	Science,	Winston-Salem.
Graham, Theodore Alexander,	Arts,	Mount Ulla.
Grantham, George Leighton,	Science,	Fairmont.
Green, George, Jr.,	Arts,	New Bern.
Green, James Columbus,	Science,	Roberdel.
Grimes, Ira Kimbrough,	Arts,	Lexington.
Grimes, William,	Arts,	Raleigh.
Groves, William Boone,	Science,	New Bern.
Gurley, Hubert Taylor,	Arts,	High Point.
Hale, Otho William,	Arts,	Eure.
Hamer, Alfred Wilson,	Science,	McColl, S. C.
Hamilton, John Wallace,	Arts,	Atlantic.
Hardee, Charles Jay,	Arts,	Asheville.
Harper, Cornelius Haywood,	Arts,	Louisburg.
Harrington, Alonzo Franklin,	Arts,	Kinston.
Harrington, Cary Lanier,	Arts,	Greenville.
Harris, Herman Hunter,	Science,	Henderson.
Hash, Jackson Bruce,	Arts,	Piney Creek.
Hawkins, Uriah Vaughn,	Science,	Charlotte.
Hazlehurst, Charles Mortimer,	Science,	Wilmington.
Hennessee, Valley Broadway,	Arts,	Glen Alpine.
Hennessee, William Edward,	Arts,	Salisbury.
Henning, John Kenyon,	Arts,	Winston-Salem.

Henry, William Ernest,	Science,	Ivanhoe.
Henson, Harry Forest, Jr.,	Arts,	Crewe, Va.
Hester, Julian Ballenger,	Arts,	Tryon.
Hicks, Edison Thurston,	Arts,	Henderson.
Highsmith, Jasper Noah,	Science,	Currie.
Hight, Clyde Howard,	Science,	Henderson.
Hill, John Burt,	Arts,	Louisburg.
Hodges, Daniel Merritt,	Arts,	Asheville.
Hodges, Luther Mortimer,	Arts,	Leaksville.
Hofler, Paul Loraine,	Arts,	Gatesville.
Hooker, William Howard,	Arts,	Greenville.
Horton, Humie Lee,	Science,	Apex.
Houston, Hugh Fitzgerald,	Science,	Monroe.
Howell, Alvin Hix,	Science,	Goldsboro.
Howell, James Albert,	Arts,	Florence, S. C.
Hudson, Howell Ashley,	Arts,	Grimesland.
Hunter, Gordon Coble,	Science,	Greensboro.
Hurley, James Franklin,	Arts,	Salisbury.
Hutchins, Ernest Temple,	Science,	Chapel Hill.
Hutchinson, Joseph Franklin,	Arts,	Roberdel.
Hyder, Thomas Jefferson,	Arts,	Hendersonville.
Ingram, Henry Lewis,	Arts,	Ashboro.
James, Robert Edward,	Arts,	Parmele.
Jarvis, Parkhill Odell,	Science,	New Bern.
Jenkins, Edgar Bynum,	Arts,	Nashville.
Jenkins, Kelly,	Science,	Roanoke Rapids.
Jewett, Thomas Harding,	Arts,	Winston-Salem.
Johnson, Earle,	Arts,	Raleigh.
Johnson, James Foushee,	Science,	Raleigh.
Jordan, J. Y., Jr.,	Arts,	Asheville.
Kaminsky, Ben,	Science,	Wilmington.
Knorr, Harold Watson,	Arts,	Philadelphia, Pa
Koontz, Hoyl K.,	Science,	Lexington.
Langley, Erwin Brown,	Arts,	Wilson.
Lay, George Balch,	Arts,	Raleigh.
Ledford, Robert Newton,	Arts,	Lee.
Lee, Samuel Bayard,	Arts,	Four Oaks.
Leinbach, Raymond Joshua,	Arts,	Pfafftown.
Lewellyn, Clement Manly,	Arts,	Dobson.
Liles, Edward Francis,	Arts,	Lilesville.
Lindsay, John William,	Science,	High Point.
Lindsey, Edwin Samuel,	Arts,	Tryon.
Linker, John Isaac,	Science,	Salisbury.
Lippard, Robert Floyd,	Arts,	Lincolnton.
Livengood, Clyde Woodson,	Arts,	Salisbury.

Loftin, Adrian Lyle,	Science,	Mount Olive.
Lutterloh, Isaac Hayden,	Science,	Sanford.
McCall, Samuel Morrison,	Science,	Matthews.
McCanless, Leon,	Arts,	Salisbury.
McGhee, Basil O'Neal,	Arts,	McAdenville.
McIntosh, Arthur Talmage,	Arts,	Roberdel.
McMillan, William Farrior,	Arts,	New Bern.
McPherson, Fletcher Evelest,	Arts,	Burlington.
Maddux, Ransom Fred,	Arts,	Spartanburg, S. C.
Marshburn, Errol Otis,	Science,	Raleigh.
Matthews, Walter Martin,	Arts,	Pilot Mountain.
Maxwell, Raymond Craft,	Arts,	Raleigh.
Mayer, Arthur Ernest,	Science,	Baltimore, Md.
Maynard, Reid Atwater,	Arts,	Altamahaw.
Merritt, Alderman,	Arts,	Raleigh.
Merritt, Eddy Schmidt,	Arts,	New Bern.
Meyer, Andrew Parker,	Science,	New Orleans, La.
Miles, Forest Glenwood,	Arts,	Warrenton.
Miller, Cornelius,	Science,	Chapel Hill.
Moore, Henry Huddler,	Science,	Scotland Neck.
Moore, James Samuel,	Arts,	Bethel.
Morris, Lawrence Charles,	Arts,	Marion.
Mountcastle, Vernon Bass,	Science,	Weldon.
Murray, Josiah Stockton,	Science,	Durham.
Naylor, Harold Lee,	Science,	Raleigh.
Newell, William Clifton,	Science,	Newell.
Nims, Horace,	Arts,	Mount Holly.
Norman, Milton,	Science,	Halifax.
Norris, Samuel Royall,	Science,	Jacksonville, Fla.
Nowell, Stephen Cannon,	Science,	Winfall.
Ogburn, Carl DeWitt,	Arts,	Winston-Salem.
Owen, Allen Kent,	Science,	Winston-Salem.
Parrish, Joseph Garvery,	Arts,	Hillsboro.
Parker, Irvin Ferdinand,	Arts,	Bradentown, Fla.
Pate, John McNair,	Arts,	Laurel Hill.
Patterson, John Earl,	Science,	Spray.
Paylor, John Hill,	Arts,	Laurinburg.
Pearson, John Amos,	Science,	Apex.
Pearson, James Fred,	Arts,	Gastonia.
Penland, William Zadoc,	Arts,	Marshall.
Penn, William Shelton,	Science,	Boone.
Perry, Frazier Olmstead,	Arts,	Sanford.
Perry, Robert Edward,	Arts,	Mount Olive.
Petree, Ralph Ewart,	Arts,	Germanton.
Pippin, Herman Lafayette,	Arts,	Fremont.

Pippin, Norman Ralph,	Arts,	Fremont.
Pittman, Malory Alfred,	Science,	Aulander.
Poag, James Davis,	Arts,	Greenville, S. C.
Poe, Eugene Allan,	Science,	Lenoir.
Pointer, Elijah Ware,	Arts,	Monroe.
Pou, Edwin Smith,	Arts,	Smithfield.
Powell, John William Gordon,	Arts,	Roxobel.
Price, William Enoch,	Arts,	Madison.
Proctor, James Knott,	Science,	Grimesland.
Rhyne, Jefferson Jennings,	Arts,	Bessemer City.
Richardson, William Banks,	Science,	Ashboro.
Robbins, Fred Ross,	Science,	Lenoir.
Robbins, William Dudley,	Science,	Raleigh.
Roberts, Bennett Watson,	Science,	Gatesville.
Roberts, Ernest Owen,	Arts,	Biltmore.
Roddick, Charles Sylvester,	Arts,	Winston-Salem.
Roland, Robert Lee,	Arts,	Burnsville.
Rondthaler, Theodore Edward,	Arts,	Winston-Salem.
Rosenthal, Maurice Grausman,	Science,	Raleigh.
Rush, Zeb Harris,	Science,	Ashboro.
Sadler, Wilson Robert,	Science,	Charlotte.
Saunders, John Edward,	Arts,	Aulander.
Sawyer, Reuben Holmes,	Science,	Asheville.
Scales, George Brue,	Arts,	New Bern.
Schenck, Jean Winter,	Arts,	Lawndale.
Scott, Henry Alvord,	Science,	Mebane.
Self, Zebulon Vance,	Arts,	Siler City.
Sexton, John William,	Arts,	Whitakers.
Shepard, Frederick Carlyle,	Science,	Wilmington.
Simmons, John,	Arts,	Trenton.
Simpson, Henry Belk,	Arts,	Matthews.
Sipe, Bryan Webb,	Arts,	Cherryville.
Smawley, Earl Clinton,	Arts,	Landrum, S. C.
Smith, Harry Gillespie,	Science,	Tarboro.
Smith, Norment,	Science,	Weldon.
Somers, Claude Galen,	Arts,	Burlington.
Somers, James Ira,	Science,	Burlington.
Speight, Dean Louis,	Arts,	Parmele.
Starr, William Joseph,	Science,	Creswell.
Sternberger, Clarence Bear,	Arts,	Wilmington.
Stewart, Charles Davis,	Arts,	Gloucester.
Stewart, John Edwin,	Arts,	Winston-Salem.
Stewart, Oliver Conrad,	Arts,	Battleboro.
Stokes, William Fleming,	Arts,	Stokes.
Strowd, James Carl,	Arts,	Chapel Hill.

Summer, Loyd Langston,	Arts,	Cherryville.
Taylor, Cary Buxton,	Science,	Oxford.
Taylor, Erasmus Henry Evans,	Science,	Morganton.
Taylor, Shahane Richardson,	Science,	Kinston.
Templeton, Rufus Benjamin,	Science,	Holly Springs.
Thomas, Benjamin Hilton,	Arts,	Rocky Mount.
Thomas, James Raymond,	Arts,	Spencer.
Thompson, Coy Ruffin,	Science,	Clayton.
Thornton, Frank Rufus,	Arts,	Fayetteville.
Torrence, Charleston Kennedy,	Arts,	Gastonia.
Totten, John Thomas,	Arts,	Yadkin College.
Towler, Joseph Barber,	Arts,	Raleigh.
Townsend, David,	Arts,	Rowland.
Travis, Louis Grady,	Arts,	Halifax.
Turner, Marvin Lee,	Arts,	Shelby.
Tuttle, Orion Augustus,	Arts,	Pineville.
Upchurch, Frank Drew,	Arts,	Jacksonville, Fla.
Vogler, Curtis Linville,	Arts,	Winston-Salem.
Waddill, Paul Humber,	Science,	Carthage.
Walker, Charles Murchison,	Arts,	Fayetteville.
Walker, Nathaniel,	Science,	Winston-Salem.
Walker, Samuel Ansell,	Science,	Poplar Branch.
Warren, John Frank,	Arts,	Mount Airy.
Watkins, William Allen,	Arts,	Wadesboro.
Weathers, Bynum Edgar,	Arts,	Shelby.
Webb, Dwight Maurice,	Arts,	Forest City.
Webb, John Graham,	Arts,	Oxford.
West, Hilton Gaultney,	Arts,	Greensboro.
White, Boyd,	Arts,	Gibson.
White, Gilbert Bolton,	Arts,	Trinity.
White, Henry Bryan,	Arts,	Aulander.
Whitington, Charles Allen,	Arts,	Apex.
Whitson, Edward Maxwell,	Arts,	Asheville.
Williams, David Patrick,	Arts,	Crewe, Va.
Williams, Ralph Devereux,	Arts,	High Point.
Williamson, Walter Harold,	Arts,	Carthage.
Willis, Daniel,	Arts,	Atlantic.
Willis, Leroy Berkhead,	Arts,	New Bern.
Wilson, Lawrence Addison,	Science,	Fairmont.
Wilson, William Gilliam, Jr.,	Science,	Wilsons Mills.
Wimberley, George Lewis, Jr.,	Science,	Rocky Mount.
Wolfe, Harold Otto,	Science,	Wilmington.
Wood, Edward Phillips,	Science,	Canton.
Wood, Thomas Badham,	Arts,	Edenton.
Woodburn, David Cleophas,	Arts,	Pleasant Garden.

Wright, Orpheus Evans,	Science,	Winston-Salem.
Wright, Samuel King,	Arts,	Ruffiin.
Wright, Thomas Ewell,	Arts,	Newton.
Wunsch, William Robert,	Science,	Monroe, La.
Yokley, John Bruce,	Arts,	Mount Airy.
Younce, George Alexander,	Arts,	Spencer.

Special Students

Abernethy, Max Dudley,	Special,	Gastonia.
Alexander, William Ross,	Special,	Statesville.
Ambler, Arthur Chase,	Special,	Asheville.
Anderson, Oscar Shannon,	Special,	Williamston.
Barton, Agnes Hyde,	Special,	Hartford, Conn.
Bennett, Edwin Keith,	Elect. Law,	San Juan, P. R.
Borden, Thomas Fuller,	Special,	Goldsboro.
Boshamer, Cary Carlisle,	Special,	Statesville.
Brock, Burr Coley,	Special,	Farmington.
Bryan, Jean,	Special,	Chapel Hill.
Carter, George Kallam,	Elect. Med.,	Kings Creek.
Chapman, Leicester,	Special,	Asheville.
Crooke, Harold LaRoy,	Special,	Greenville, S. C.
Davis, Robert Cowan,	Special,	Wilmington.
Dixon, George Brownrigg,	Special,	Edenton.
Fuquay, Daniel Long,	Special,	Durham.
Gold, Benjamin,	Special,	Lattimore.
Hambright, Roy Kinard,	Special,	Grover.
Harris, David,	Special,	High Point.
Hartshorn, Edwin Shotts,	Elect. Law,	Asheville.
Haughton, Alexander Andrews,	Special,	Charlotte.
Herring, Everett Edwin,	Elect. Med.,	Mount Olive.
Hutchins, Camillus Gray,	Elect. Med.,	Mocksville.
Johnson, Felix Leslie,	Special,	Aberdeen.
Lowrance, Carlos Uriah,	Special,	Catawba.
McCullen, Samuel David,	Special,	Goldsboro.
McDonald, Alfred,	Special,	South Jacksonville, Fla.
McGlamery, Winnie,	Special,	Lewisburg, W. Va.
McKay, Sam Rankin,	Elect. Med.,	Red Springs.
McSorley, Charles James, Jr.,	Elect. Med.,	New Bern.
Noland, Lawrence Van,	Elect. Med.,	Asheville.
Orr, William Jennings Bryan,	Elect. Med.,	Currie.
Plyler, Ralph Johnson,	Special,	Cleveland.
Pridgen, Ralph Craven,	Special,	Tabor.
Quinn, Frank Elbert,	Elect. Med.,	Warsaw.
Reams, Marion,	Special,	Durham.
Redfearn, William Alexander,	Special,	Wingate.

Reid, Edward Solomon, Jr.,	Special,	Charlotte.
Roberts, Hubert Earl,	Elect. Med.,	Marshall.
Robertson, Owen Spencer,	Special,	Hillsboro.
Rohleder, Milton Earl,	Special,	Charlotte.
Rutledge, Frederick Reeves,	Special,	Charlotte.
Schenck, Hal Emerson,	Special,	Lawndale.
Sheek, James Kimbrough,	Elect. Med.,	Mocksville.
Shreve, Lemuel Morse,	Special,	Hendersonville.
Snider, Charles Lee,	Special,	Denton.
Stroud, Dortch,	Elect. Med.,	Pink Hill.
Turlington, Richard Stamey,	Special,	Clinton.
Warren, Ernest Robert,	Special,	Gastonia.
Warren, Gordon Wells,	Special,	Durham.
Williamson, Fred Yates,	Elect. Med.,	Wilmington.
Wilson, Eleanora Stansbury,	Special,	Chapel Hill.
Wright, William Cullen, Jr.,	Special,	Winston-Salem.
Young, James Robert,	Special,	Dunn.

Senoir Students in Law

Allen, Reynold Tatum,	Kinston.
A.B., 1914.	
Aycock, Benjamin Franklin,	Fremont.
A.B., 1914.	
Barber, J. Wade,	Pittsboro.
A.B., 1914, Guilford College.	
Beckwith, Clifton Warren,	Raleigh.
Bell, Clifton Linwood,	Swan Quarter.
Blount, Marvin Key,	Bethel.
A.B., 1914, Randolph-Macon College.	
Bryan, Robert Thomas, Jr.,	Chapel Hill.
Cockerham, Joseph Llewellyn,	Lowgap.
Coggin, Charles Lee,	Salisbury.
Craig, George Winston,	Asheville.
Crawford, Hilary Herbert,	Waynesville.
Gardner, Paris Cleveland,	Shelby.
Hart, Julian Gilliam,	Winston-Salem.
Henderson, Mary Ferrand,	Salisbury.
Holton, George Ricks,	Winston-Salem.
A.B., 1915.	
Jones, Frank Carlton,	Plymouth.
Leach, Oscar,	Raeford.
A.B., 1914.	
Lovelace, Oscar Newton,	Mooresboro.
Metz, Harold Wilbur,	Nashville, Tenn.
Mick, Ernest Grant,	Weaverville.
Odom, John Daffin,	Rocky Mount.

Pou, James Hinton, Jr., Raleigh.
Rouse, Walter Bryan, Chapel Hill.
Royster, Royal Hobgood, Oxford.
Shuford, Richard Harvey, Hickory.
A.M., 1914.
Simmons, Enoch Spencer, Washington.
Simmons, James Lawrence, Shelby.
A.B., 1909.
Taylor, James Alexander, Oxford.
Trenchard, Thomas Gawthrop, Chapel Hill.
A.B., 1895, Princeton University.
Turner, Henry Clay, Norwood.
Wilkinson, William Stronach, Jr., Rocky Mount.
Zollicoffer, Allen, Weldon.

Junior Students in Law

Aiken, John Will, Hickory.
A.B., 1915, Lenoir College.
Andleton, Allan Wills, Weldon.
Angel, Lewis Berry, Franklin.
A.B., 1914.
Bell, Daniel Long, Chapel Hill.
A.B., 1915.
Blackmer, Sidney Alderman, Salisbury.
Blades, William Benjamin, Jr., New Bern.
Breeden, Daniel Carlton, Bennettsville, S. C.
Brinkley, Robert Loyd, Elm City.
A.B., 1914.
Brinkley, Walter Foil, Lexington.
Carter, John Edwin, Mount Airy.
B.S., 1915, Davidson College.
Clarkson, Francis Osborne, Charlotte.
Cobb, Henry Wellington, Jr., Richmond, Va.
A.B., 1912, Princeton University.
Coleman, James Millar, Asheville.
Cook, John Henry, Fayetteville.
Cook, Robert Edward Lee, Jr., Tarboro.
Cowell, Horace Baxter, Washington.
Craig, Gillam, Monroe.
A.B., 1913.
Cratch, Samuel Clifton, Washington.
Davis, Arnold Cleo, Summerfield.
Day, John Tucker, Walkertown.
A.B., A.M., 1915.
Dixon, George Selby, Aurora.
Fenner, Harry Shaw, Halifax.
Folger, Augustine William, Easley, S. C.
B.S., 1915, The Citadel.
Furgerson, Henry Beauregard, Jr., Halifax.

Graves, William, A.B., 1912.	Mount Airy.
Hackler, James Frank,	Sparta.
Hartshorn, Edwin Shotts,	Asheville.
Hughes, Clinton Kelly,	Asheville.
Litaker, Oliver Milton,	Thomasville.
McNeill, Robert Strange, A.B., 1910.	Fayetteville.
McSwain, Peyton,	Shelby.
Marshburn, Owen Meredith,	Zebulon.
Miller, Stephen Alexander,	Charlotte.
Norman, Zebulon Vance,	Plymouth.
Norris, Frank Wisconsin,	Jacksonville, Fla.
Ray, James Clyde,	Hillsboro.
Revell, Marvin Stanford, Ph.B., 1914, Elon College.	Kenly.
Royster, Beverly Sampson, Jr.,	Oxford.
Ruffin, Thomas White,	Louisburg.
Shapiro, Moses,	Winston-Salem.
Swain, Herbert Linwood,	Jerry.
Thorp, William Lewis,	Rocky Mount.
Vaughn, Robert Candler,	Winston-Salem.
Whitaker, William Pell, Jr., A.B., 1914.	Wilson.
Winslow, Hillary Goode,	Hertford.
Wolfe, Adolphus Harrison, A.B., 1910.	Thurmond.
Yates, Grover Cleveland,	Chadbourn.

Special Students in Law

Cameron, Paul Archibald,	Kinston.
Carraway, Bruce Hilliard,	Kinston.
Corey, Arthur Benjamin,	Winterville.
Denton, John Reed,	Tarboro.
Elliott, Guy,	Surry.
Nixon, Kenneth Jones,	New Bern.
Norman, Swain,	Halifax.
Powell, Wood Hayes,	Harmony.
Ramsey, Albert Lyle,	Franklin.
Turner, Herbert Ransom,	Pink Hill.

Students in Law (Summer School)

Allen, Reynold Tatum, A.B., 1914.	Kinston.
Barber, J. Wade, A.B., 1914, Guilford College.	Pittsboro.

Bell, Clifton Linwood,	Swan Quarter.
Bender, Robert Philemon,	Polloksville.
Berry, Margaret Kollock,	Chapel Hill.
A.B., 1913.	
Brigman, Lindo,	Rockingham.
A.B., 1905.	
Caldwell, Joe Yongue,	Statesville.
A.B., 1913.	
Cansler, John Scott,	Charlotte.
A.B., 1914.	
Clark, Hector Hentand,	Abbottsburg.
Cockerham, Joseph Llewellyn,	Lowgap.
Davis, Jedeth Roon,	Shelby.
A.B., 1914, Trinity College.	
Dickson, Rufus DeVane,	Raeford.
A.B., 1904, Davidson College.	
Dees, Julius Gladstone,	Grantsboro.
Gardner, Paris Cleveland,	Shelby.
Graham, Augustus Washington, Jr.,	Oxford.
A.B., 1912.	
Grimsley, Harry Barnette,	Greensboro.
A.B., 1914.	
Hamilton, Luther,	Atlantic.
Harris, Elisha Carter,	Elizabeth City.
A.B., 1913.	
Hornick, Adolph Robert,	Charleston, S. C.
Jones, Frank Carlton,	Plymouth.
Joyner, William Thomas,	Raleigh.
A.B., 1911.	
Lee, James Grover,	Roxboro.
A.B., 1914.	
Leitch, John Archibald, Jr.,	Salisbury.
A.B., 1910.	
Lynch, William Edward,	Edgefield, S. C.
McCoy, James Andrew,	Columbia, S. C.
Marrow, Henry Burwell,	Henderson.
A.B., 1912.	
Monroe, Robert Andrew,	Laurinburg.
Moore, William Peter,	Fonta Flora.
A.B., 1912.	
Norman, Zebulon Vance,	Plymouth.
Pearson, Joseph Edmund,	Holly Springs.
Ph.B., 1903.	
Powell, Wood Hayes,	Harmony.
Reece, James Thaddeus,	Yadkinville.
A.B., 1912.	
Sharpe, T. H.,	Houstonville.
Simmons, James Lawrence,	Shelby.
A.B., 1909.	

Smith, Major Thomas, Reidsville.
LL.B., 1915.
Taylor, James Alexander, Oxford.
Trenchard, Thomas Gawthrop, Chapel Hill.
A.B., 1895, Princeton University.
Vinson, Barnard Bee, Littleton.
A.B., 1908.
Walker, Daniel Joshua, Union Ridge.
A.B., 1913.
Whitaker, William Pell, Jr., Wilson.
A.B., 1914.
Whitley, Wilford Llewellyn, Washington.
Wilkinson, William Stronach, Jr., Rocky Mount.
Williams, Isham Roland, Faison.
A.B., 1913.
Winborne, Robert Warren, Roanoke, Va.
LL.B., 1915, Washington and Lee University.

Students in Medicine

Angel, Furman,	Second,	Franklin.
Bailey, Kenneth Hubert,	First,	Wakefield.
A.B., 1915.		
Blount, Ferrall Leighton,	First,	Bethel.
Bonner, John Bryan,	Second,	Bonnerton.
Booth, Shepherd Allen,	First,	Oxford.
Brinkley, Harvey Meares,	First,	Elm City.
Brooks, George Martin,	Second,	Sunbury.
Broughton, Needham Bryant,	First,	Raleigh.
A.B., 1911, Wake Forest College.		
Bullock, Duncan Douglas,	First,	Rowland.
Cannon, Douglas Launeese,	First,	Spartanburg, S. C.
B.S., 1913, Clemson College.		
Conoly, Lacy Newton,	First,	Shannon.
Cook, Henry Lilly, Jr.,	Second,	Fayetteville.
Cooke, Grady Carlyle,	Second,	Winston-Salem.
Coppridge, William Maurice,	Second,	Roanoke, Va.
Corpening, Cora Zetta,	Second,	Mars Hill.
Crawford, Karl Brooks,	First,	Sugar Hill.
Dalton, Grover Cleveland,	Second,	Gilkey.
DeLaney, Charles Oliver,	First,	Matthews.
Dickson, James Gillespie,	Second,	Raeford.
Dixon, Rufus Herbert,	Second,	Bishopville, S. C.
Dixon, William Harvey,	First,	Rocky Mount.
Elliot, Avon Hall,	First,	Thornwall.
A.B., 1914, Davidson College.		
Ervin, Carl Edgar,	Second,	Troutmans.
A.B., 1915.		
Folger, Paul Bernays,	Second,	Dobson.

Gaither, Alfred Long, A.B., 1915.	Second,	Statesville.
Gantt, William Andrew Horsley,	First,	Wingina, Va.
Harbison, John William,	First,	Morganton.
Harden, Graham, A.B., 1915.	First,	Burlington.
Harrell, William Henry,	Second,	Williamston.
Hawfield, James,	Second,	Matthews.
Hayworth, Roy Washington,	Second,	Ashboro.
Hicks, Vonnie Monroe,	Second,	Greensboro.
Hill, William Francis,	First,	Jersey City, N. J.
Holton, Quinton, A.B., 1913, Trinity College.	First,	Durham.
Hubbard, Frederick Cecil,	Second,	Wilkesboro.
Hunter, DeWitt Talmage,	Second,	Matthews.
Hurt, Ira Huff,	First,	Roanoke, Va.
Kanner, Harry Mitchell,	Second,	Sanford, Fla.
Kirksey, James Jackson,	First,	Morganton.
Knowles, Daniel Lamont, A.B., 1914.	Second,	Mount Olive.
Lawrence, Benjamin Jones,	Second,	Creedmoor.
Lyon, Henry Wise, A.B., 1911.	Second,	Windsor.
McGuire, Burrus Boyd,	Second,	Norton.
Mangum, Charles Preston,	Second,	Kinston.
Marlowe, William Anderson,	First,	Walstonburg.
Marsh, Frank Baker,	First,	Salisbury.
Mitchell, Roy Colonel,	Second,	Mount Airy.
Moore, Julian Alison,	Second,	Wilmington.
Morris, Carlyle,	First,	New Bern.
Pendergrass, Eugene Percival,	Second,	Florence, S. C.
Phillips, John William,	First,	Sanford.
Pitt, William Franklin, A.B., 1914.	First,	Macclesfield.
Pittman, Henry Lee,	First,	Fayetteville.
Price, James Valentine, Jr., A.B., 1915.	First,	Madison.
Reyner, Daniel,	Second,	Raleigh.
Riddle, Norwood Clayton,	First,	Sanford.
Rousseau, James Parks,	Second,	Wilkesboro.
Scott, Samuel Floyd, A.B., 1915.	Second,	Haw River.
Scruggs, Fred Bobo,	First,	Rutherfordton.
Smith, Claiborne Thweatt, A.B., 1915.	Second,	Scotland Neck.
Smith, Hugh Percival, A.B., 1914, Wake Forest College.	Second,	Timmonsville, S. C.

Smith, Joseph Elmer,	First,	Wilson.
Spoon, Samuel Clarence,	Second,	Haw River.
Squires, Claude Babbington,	First,	Charlotte.
Stanford, William Raney, A.B., 1915.	First,	Teer.
Stone, Leslie Ogburn,	Second,	Kittrell.
Sugg, Eugene Sifax,	Second,	Chapel Hill.
Sweaney, Hunter McGuire, B.A., 1915, Richmond College.	First,	Leaksville.
Tayloe, David Thomas, Jr.,	Second,	Washington.
Taylor, William Grimsley,	First,	Greensboro.
Wadsworth, Harvey Bryan, A.B., 1909.	Second,	Cove City.
Warlick, Henry Clinton, Jr.,	Second,	Newell.
West, Gordon Fitzhugh,	First,	Bynum.
Wheeler, James Hartwick,	Second,	Holly Springs.
Wilson, Robert Gladstone,	First,	Swannanoa.
Wolff, Dennis Roscoe,	Second,	Rural Hall.
Yarborough, Nathaniel Bayard,	First,	Cary.

Students in Pharmacy

Adams, Wilbur Coble,	Second,	Rowland.
Allen, Walter Otts,	First,	Hendersonville.
Arps, Percy Madison,	First,	Plymouth.
Barnes, Rudolph,	First,	Clayton.
Batts, Joseph John, Jr.,	First,	Wilson.
Beard, John Grover,	Third,	Chapel Hill.
Beddingfield, Charles Herman,	First,	Clayton.
Bell, Earl Vann,	First,	Wakefield.
Bobbitt, Louis Myron,	First,	Warren Plains.
Britt, Clarence Leonidas,	First,	Newton Grove.
Butler, Alman Byron,	Second,	Roseboro.
Cannady, William Henry,	Special,	Benson.
Carswell, Ransom Fred,	First,	Morganton.
Cecil, Aros Coke,	First,	High Point.
Cline, James Oram,	First,	Granite Falls.
Dees, Robert Edward Lee,	First,	Pikeville.
Eubanks, James Norwood,	First,	Pittsboro.
Fishel, Arthur Levi,	Third,	Winston-Salem.
Fisher, Lester,	Second,	Concord.
Fuller, Frank Webb,	First,	Lenoir.
Guin, Clyde Doyle,	Special,	Unionville.
Gurley, William Burden,	First,	Windsor.
Hayes, George Everett,	First,	Granite Falls.
Herring, Needham Bridgman,	Second,	Wilson.
Hoey, Frank,	Special,	Shelby.

Hufham, Walter,	First,	Chadbourn.
Jernigan, Rupert Watson,	Second,	Chapel Hill.
Kirksey, Lonnie Herman,	First,	Morganton.
Layden, Edward Harris,	First,	Lexington.
Ledbetter, Edmond DeBerry,	First,	Chapel Hill.
McFadyen, Henry Faucette,	Special,	Waynesville.
Mann, Randall Newton,	Special,	High Point.
Merritt, Nello Harward,	Special,	Chapel Hill.
Miles, Morton Clifton,	First,	Warrenton.
Miller, Clarence Mason,	Second,	Rock Hill, S. C.
Mullen, Thomas Lee,	First,	Huntersville.
Nelson, William George,	First,	New Bern.
Nye, George Lanneau,	First,	Orrum.
Overman, Victor Kent,	First,	Elizabeth City.
Padgett, Everett Lee,	First,	Nebo.
Parker, Alfred,	First,	Benson.
Patterson, Fred Marion,	Second,	Concord.
Perkins, Frank Stuart,	First,	Greenville.
Perry, James Edward,	First,	Franklin.
Pritchard, James Manning,	First,	Chapel Hill.
Roberson, Elmer Ralph,	First,	Robersonville.
Saleeby, Eli Richard,	First,	Wilson.
Sanford, Roger Derrick,	Second,	Laurinburg.
Scruggs, Boyce Pinkney,	First,	Rutherfordton.
Snell, William Hunter,	First,	Belhaven.
Speight, Frederick Perry,	First,	Edenton.
Sutton, Carl,	First,	Wilson.
Townsend, William Freeman,	First,	Greensboro.
Turlington, Jesse Eli,	Second,	Benson.
Walker, Benjamin Wyche,	First,	Rocky Mount.
Watson, John Moody,	Special,	Southport.
Webb, Alexander Grady,	Special,	Chapel Hill.
Wiggins, William Winston,	Second,	Coats.
Wilson, Claud Arthur,	First,	Marion.
Wilson, George Sparrow,	First,	Gastonia.
Wilson, Lowry Reid,	Second,	Gastonia.
Young, Alexander Eugene,	Second,	Fort Mill, S. C.

SUMMER SCHOOL STUDENTS (1915)

Graduates

Aderholdt, Victor Vard, A.B., 1915, Lenoir College.	Crouse.
Allen, Robert Ernest, A.B., 1914, Erskine College.	Clover, S. C.
Andrews, Troy Monroe, A.B., 1914.	Chapel Hill.
Ballard, Arthur Stamey, A.B., 1914, Wake Forest College.	Maiden.
Bradshaw, George Washington, B.S., 1908, Guilford College.	Ivor, Va.
Breazeale, Elizabeth, A.B., 1914, Winthrop Normal College.	New Brunswick, N. J.
Byrd, Howard Matthew, A.B., 1914, Presbyterian College of S. C.	Hartsville, S. C.
Campbell, Edgar Thomas, A.B., 1915.	Surry.
Carpenter, Clayton Calvin, A.B., 1914, Lenoir College.	High Shoals.
Cates, Clyde Lucius, A.B., 1912.	Chapel Hill.
Clarke, Wilfong Waldron, A.B., 1915.	Morganton.
Farmer, Curren Monroe, A.B., 1908, Oscaloosa College.	Wilson.
Ferguson, Guerrant H., A.B., 1915, Wake Forest College.	Reidsville.
Futrell, Kinnie Thayer, A.B., 1913, Guilford College.	Greensboro.
Futrell, Walter Edward, A.B., 1911, Wake Forest College.	Conway.
Genes, Samuel Alfred, A.B., 1913, Wofford College.	Fayetteville.
Gentry, Jonathan Horton, B.S., 1913, Davidson College.	Sparta.
Gentry, John Robert, A.B., 1914.	Princess Anne, Md.
Gettys, Samuel Clinton, A.B., 1912, Wake Forest College.	Hollis.
Glass, Frances Settle, A.B., 1912, Lenoir College.	Reidsville.

Highsmith, James Albert, Greensboro.
A.B., 1910; A.M., 1915.

Holmes, John Albert, Graham.
A.B., 1914.

Holmes, James Eugene, Graham.
A.B., 1914.

Hutchinson, Robert Henry, Fairview.
A.B., 1908, Carson-Newman College.

Inscoe, Linwood Sinclair, Castalia.
A.B., 1915, Wake Forest College.

Isley, Robert Waldon, Liberty.
A.B., 1913.

Johnson, Charles Haddon, Trenton.
A.B., 1914, Wake Forest College.

Johnson, Harris Guthrie, Riley's Store.
B.S., 1914, Guilford College.

Johnson, Lillian Wychoff, Memphis, Tenn.
A.B., 1891, Univ. of Mich.; Ph.D., 1902, Cornell Univ.

Lindsay, Seaton Gales, Troy.
A.B., 1901.

Lohr, Lawrence Luther, Jr., Lincolnton.
A.B., 1914, Lenoir College.

McEwen, James Henry, Matthews.
A.B., 1914, Davidson College.

McKnight, Roy Bowman, Charlotte.
A.B., 1914.

Marsh, Roy Augustus, Marshville.
A.B., 1913, Wake Forest College.

Miller, Herbert Craig, Newton.
A.B., 1910, Lenoir College; A.M., 1913.

Murray, Edward Clark, Greensboro.
A.B., 1914, Davidson College.

Murray, Sabina Theresa, Ithaca, N. Y.
A.B., 1915, Cornell Univ.

Nance, Ophir Carmal, High Point.
A.B., 1915.

Owen, Frank Redding, Yadkin College.
A.B., 1914.

Perrett, Vergil Addison, Whitsett.
A.B., 1913.

Perry, Edwin Jerry, Wilson.
A.B. and A.M., 1914.

Puett, Anna Mariah, Dallas.
A.B., 1914.

Ranson, Robert Eugene, Southport.
A.B., 1901, Erskine College.

Reed, Ralph Alton, Winston-Salem.
A.B., 1914.

Rodgers, James Orr, Statesville.
A.B., 1911, Erskine College.

Seay, Henry Lee, Lexington, S. C.
A.B., 1908, A.M., 1915, Lenoir College.

Short, George Asa, Greensboro.
A.B., 1913, Guilford College.

Smith, Junius Everett, Siler City.
A.B., 1914, Wake Forest College.

Sneed, William Goodridge, Dabney.
A.B., 1910, Oskaloosa College.

Thompson, Ben Oscar, Lincolnton.
A.B., 1906, Trinity College.

Thompson, William Reid, Teer.
A.B., 1914.

Thorne, Joseph Burrell, Bostick.
A.B., 1908, Wake Forest College.

Upchurch, William Merriman, Durham.
A.B., 1906.

Wadsworth, Harvey Bryan, Cove City.
A.B., 1909.

Warlick, Alfred Caldwell, Belwood.
A.B., 1915, Wake Forest College.

Weaver, James Ralph, Chapel Hill.
A.B., 1915.

Woosley, Oscar Vergus, Lexington.
A.B., 1905, Guilford College.

Wright, Nathaniel, Chapel Hill.
A.B., 1915.

Undergraduates

Alexander, Samuel Irvin, Huntersville.
Allen, Julia Washington, Goldsboro.
Allen, Lillian May, Waynesville.
A.B., 1911, Meredith College.

Bacon, Edward Onslow, Newton.
Baggett, Venon, Salemburg.
Blalock, Hubert Morse, Raleigh.
Blanton, Lawton, Chapel Hill.
Blount, Ferrall Leighton, Bethel.
Booth, Shepherd Allen, Oxford.
Brickhouse, Ephraim Lee, Jr., Kinston.
Brock, Burr Coley, Farmington.
Brockman, Harry Lyndon, Greensboro.
Brooks, George Martin, Sunbury.
Brooks, Robert Plato, Jr., Woodsdale.
Broome, Mary Elizabeth, Kinston.
Bryan, Jean, Chapel Hill.
Bryan, Lynnwood Sessums, Oxford.

Buck, George Cleveland, A.B., 1911, Wake Forest College.	Grimesland.
Burgess, William Grady,	Shelby.
Burns, Bessie Leigh,	Durham.
Campbell, Harvey James,	Burlington.
Capehart, William Jonathan,	Roxobel.
Capps, James Arthur,	Bessemer City.
Chaffe, Lucy Pryor,	New Orleans, La.
Childs Clara Annie,	Sumter, S. C.
Cline, Mary Ethel, Graduate, 1915, Davenport College.	Lincolnton.
Coltrane, David Stanton,	Jamestown.
Cooper, George Herman,	China Grove.
Cooper, Sophronia Moore, Graduate, St. Mary's School.	Oxford.
Correll, David Kinnear,	China Grove.
Costen, Mrs. Thomas William,	Gates.
Cowan, James Gerald,	Asheville.
Crawford, Karl Brooks,	Sugar Hill.
Crawford, Louis Russell,	Hertford.
Currie, Claude,	Candor.
Dixon, Lizzie Emma, A.B., 1904, Meredith College.	Mt. Vernon Springs.
Dodson, Agnes Virginia,	Winston-Salem.
Egerton, Graham Burwell,	Louisburg.
Elias, Miguel Grausman,	Columbia, S. C.
Elsom, Floyd Howard,	Hendersonville.
Folger, Carl Louis,	Dobson.
Fox, Lawrence Patrick,	McConnelsville, Ohio.
Freeland, Chloe Holt, A.B., 1915, Salem College.	Burlington.
Fulcher, Manly,	Atlantic.
Funderburk, Kemp,	Monroe.
Fuquay, Daniel Long,	Durham.
Gant, Cecil,	Burlington.
Gilbert, Edith Fleming, A.B., 1913, Statesville College.	Cooleemee.
Goforth, Osborne LeRoy,	Durham.
Goode, Seddon, Jr.,	Clinton.
Graham, Violet Arvin,	Richmond, Va.
Hardison, Joseph Hammond,	Fayetteville.
Hargrave, Lee Lyndon,	Battleboro.
Harper, William Troy,	Chapel Hill.
Harris, Elizabeth Brown, Graduate, 1909, Littleton College.	Polkton.
Harris, Herman Hunter,	Henderson.

Herman, Emory Cline, Conover.
Hester, Hugh Bryan, Hester.
Hill, John Bright, Warsaw.
Hilliard, Elizabeth Haven, Oxford.
Holcombe, Virgil Eugene, Enoree, S. C.
Horsfield, Basil Tourneur, Oxford.
Horton, Mrs. Lidie Pierce, Greensboro.
Huff, Herbert Henry, Soudan, Va.
Hunter, Wade Russell, Alexander.
Jarrell, John Franklin, Chapel Hill, Tenn.
Jones, Ava, Holland, Va.
Joyner, Edward Gray, Littleton.
Kennedy, Mary Hunter, Houstonville.
Graduate, 1905, State Normal College.
Kennette, Ernestine, Chapel Hill.
Kerley, Artie Sue, Charlotte.
A.B., 1915, Queen's College.
Kirk, William Wilson, Jacksonville, Fla.
Koontz, Curtis Lee, Lexington.
Lamb, Adna, Guilford College.
A.B., 1912, Guilford College.
Lambeth, Mary, Guilford College.
A.B., 1910, Guilford College.
Lassiter, James Horace, Rich Square.
Lewis, Margaret, Scotland Neck.
A.B., 1904, Meredith College.
Lyday, Russell Osborne, Penrose.
McGhee, Vann Ward, Asheville.
McPherson, Elizabeth Gregory, Shiloh.
A.B., 1914, Oxford College.
Mann, Weaver George, Prentiss.
Meinung, Ruth Frances, Winston-Salem.
Graduate, 1910, Salem College.
Miller, Marion Spiers, Chapel Hill.
Miller, Mary Scales, Chapel Hill.
Mitchell, Roy Colonel, Mount Airy.
Morgan, William Arthur, Richmond, Va.
Moseley, Charles Andrew, Greensboro.
Newman, Samuel Raphael, Chapel Hill.
Newton, Annabel, Salemburg.
B.L., 1909, Oxford College.
Norton, Andrew Martin, Maxton.
O'Briant, Albert Lee, Timberlake.
Palmer, Nannie Byron, Crystal Hill, Va.
Parker, Edna Hudson, Ahoskie.

Pasmore, Julia C., Graduate, 1902, State Normal College.	Cary.
Perkins, Annie,	Greenville.
Pigg, Nannie Ellen, A.B., 1908, Meredith College.	Madison.
Pruett, Charles Jacob,	Shelby.
Ranson, Mrs. Robert Eugene,	Southport.
Reap, Charles Augustus,	Efirds Mill.
Richards, Norman Jackson,	Nassawadox, Va.
Robbins, William Dudley,	Raleigh.
Rogers, Benjamin McClesky,	Graham.
Rohleder, Milton Earl,	Charlotte.
Ross, Robert Marion, Jr.,	Shelby.
Royster, Beverly Sampson, Jr.,	Oxford.
Schenck, Samuel Moore,	Lawndale.
Self, Marvin Bishop,	Fairforest, S. C.
Shrago, Ida Rebecca,	Goldsboro.
Shrago, Jacob Philip,	Goldsboro.
Smith, John Leroy,	Chapel Hill.
Smith, William Oliver,	Raleigh.
Spencer, Rebert Baxter,	Hobucken.
Struthers, Hester Cox,	Chadbourn.
Stuart, Joseph Clyde, A.B., 1912, Elon College.	Henderson.
Swain, Herbert Linwood,	Jerry.
Thompson, Dean Matt,	Ramseur.
Thornhill, Roscoe Franklin,	State Mills, Va.
Thornton, Malcolm James,	Mount Olive.
Tuck, Natalie Hughes,	Durham.
Turlington, Richard Stamey,	Clinton.
Upchurch, Lonnie Milton,	New Hill.
Walton, Margaret,	Gatesville.
Watson, Eunice, A.B., 1911, Oxford College.	Roxobel.
Weathers, Bynum Edgar,	Shelby.
Weis, Anne, A.B., 1912, Powhatan College.	Washington, D. C.
White, Mary Isabelle, A.B., 1912, Guilford College.	Belvidere.
Whitley, Pauline, A.B., 1906, Oxford College.	Wake Forest.
Wilkins, Thomas Clingman,	Rose Hill.
Williams, Virginius Faison,	Faison.
Wilson, Robert Gladstone,	Swannanoa.
Woodside, Annie May, B.P., 1914, State Normal College.	Southport.

Yeargin, Job Theodore, A.B., Southern Normal University.	Crystal Hill, Va.
Yeargin, Mrs. Job Theodore,	Crystal Hill, Va.
Youmans, Lucile, A.B., 1912, Converse College.	Hendersonville.
Young, Margaret Louise, A.B., 1915, Queen's College.	Charlotte.

Normal Students

Abernethy, John Turner,	Chapel Hill.
Adams, May,	Holly Springs.
Albertson, Catherine Seyton,	Elizabeth City.
Albright, Myrtle,	Durham.
Alderman, Zelma,	Clinton.
Alston, Emma Jones,	Henderson.
Anderson, May,	LaGrange.
Bailey, Ethel,	Roper.
Bain, Mamie Rogers,	Hillsboro.
Baker, Nettie Maie,	Roberdell.
Ballard, Cora Belle,	Alexis.
Barbour, Inez,	Durham.
Barker, Bertha,	Lumberton.
Barker, Mrs. John Abner,	Roseboro.
Barker, Lillian Atwoode,	Lumberton.
Barnes, Andrew Virginia,	Barnesville.
Barnes, Bertha,	Barnesville.
Barnes, Sarah,	Enfield.
Bass, Walter Bayard,	Tarboro.
Bateman, Eva,	Columbia.
Bateman, Ruth Estelle,	Columbia.
Beam, Beryl Bertie,	Woodsdale.
Beam, Mrs. J. A.,	Woodsdale.
Beam, Marie,	Shelby.
Beaty, Pearl,	Iva, S. C.
Beaver, Mary Albron,	Mount Pleasant.
Beckham, Patt,	Hiddenite.
Bell, Lillias Durham,	Tuxedo.
Benton, Clyde,	Evergreen.
Bethea, Carrie Belle,	Fayetteville.
Blackwood, Annie Virginia,	University.
Blackwood, Mattie Emmeline,	University, R. No. 1.
Blake, Dora,	Chadbourn.
Blakeney, Lillian,	Monroe.
Blakeney, Louise,	Monroe.
Blalock, David John,	Mount Olive.
Blanton, Faye Whitlock,	Charlotte.

Blue, Ila,	Aberdeen.
Bobbitt, Lillie Swain,	Rougemont.
Boddie, Sallie Sledge,	Durham.
Bogle, Janie,	Hiddenite.
Boone, Aileen,	Louisburg.
Boren, Cora Louise,	Pomona.
Boren, Eva Van,	Pomona.
Boren, Norman Adison,	Pomona.
Bowen, Harriet Emily,	Jackson.
Bowling, Luetta,	Rougemont.
Boyce, Nita Saunders,	Rich Square.
Boyce, Sarah Irma,	Rich Square.
Bradsher, Eugenia,	Roxboro.
Brame, Clarence Anderson,	Kenly.
Brickhouse, Mrs. Ephraim Lee,	Kinston.
Brinson, Minnie,	Currie.
Broome, Sallie,	Kinston.
Brown, Anne Estelle,	Hillsboro.
Brown, Ethel James,	Catawba.
Brown, Hennie,	Tarboro.
Brown, Helen Margaret,	Chapel Hill.
Brown, Louise,	Ashford.
Brown, Madge,	Ashford.
Browne, Clara Will,	Biscoe.
Buchanan, Anna Meta,	Laurinburg.
Bunn, Grace Rebecca,	Spring Hope.
Burch, Lillian Alexander,	Durham, R. No. 7.
Burke, Ruth,	LaGrange.
Burns, Lula Irene,	Durham.
Burton, Chester Winthrop,	Pomona.
Bush, George Edward,	Granite Falls.
Butler, Berta,	St. Paul.
Butts, Alice Grizzard,	Garysburg.
Byerly, Edward Cleveland,	Bessemer City.
Byerly, Ida Lee,	Advance, R. No. 3.
Bynum, Mrs. Henry Atwater,	Pittsboro.
Caldwell, Esther,	Charlotte.
Cameron, Mary Esther,	Wilmington.
Capehart, Henry Bryant,	Ronda.
Capel, Capella,	Rockingham.
Carpenter, Mary Eve,	Wilmington.
Carroll, Havens,	Tarboro.
Carver, Ida Pell,	Rougemont.
Chapman, Helen,	Grifton.
Chesnutt, Thelma,	Rocky Point.

Clark, Mrs. Jessie Lee,	Elizabethtown.
Claytor, Margaret,	Chapel Hill, R. No. 3.
Clement, Anna Bryan,	Wallace.
Clement, Wallace Samuel,	Nelson, Va.
Coburn, Lishia,	Robersonville.
Cockerham, Joseph Llewellyn,	Lowgap.
Coltrane, Mabel,	High Point.
Compton, Luna Maris,	Cedar Grove.
Conley, Hessie,	Morganton.
Cooke, Grady Carlyle,	Winston-Salem.
Coon, Bettie,	Lincolnton.
Copeland, Bertha Gertrude,	Rich Square.
Cornwell, Wadelisa,	Crouse.
Council, Annie Beatrice,	Apex.
Council, Bettie,	Apex.
Council, Enid,	Apex.
Council, Rena,	Wananish.
Covington, Sue Frances,	Rockingham.
Cowan, Sarah Ashe,	Durham.
Cox, Sallie Avis,	Goldsboro.
Craven, Pearl,	Ramseur.
Creel, Dora Pearl,	Dunn.
Cridlebaugh, Walter Lee,	Hamlet.
Crowder, Mary Estelle,	Apex.
Crowder, Otey,	Woodsdale.
Crumpler, Richard Perry (Rev.),	Stem.
Cuningham, Mrs. John S.,	Durham.
Cuningham, Otelia Carrington,	Durham.
Currie, Nina,	Carthage.
Cutchin, Etta Lenora,	Chapel Hill.
Cutchin, Grace,	Chapel Hill.
Cuthbertson, Lillian,	Monroe, R. No. 5.
Davis, Inez,	Elizabethtown.
Day, Cynthia Elizabeth,	Walkertown, R. No. 1.
Day, Jerry,	Blowing Rock.
Dean, Alma Jane,	Oxford.
De Ment, Mildred,	Rockwell.
De Vane, Mary Faison,	Goldsboro.
Dixon, Helen Mae,	Snow Hill.
Dixon, Minnie Leigh,	Mount Vernon Springs.
Doub, Bessie,	Knightdale.
Dowd, Rosa,	Carthage.
Dudley, David Wilbur,	Comfort.
Dudley, Lena,	Beaufort.
Duncan, Annie Belle,	Moriah.

Duncan, Joseph Lou,	Clayton.
Edgerton, Eva,	Goldsboro.
Edmund, Fannie Elizabeth,	Chadbourn.
Edmundson, Alice Brooks,	Garner, R.F.D.
Edwards, Cornelia,	Sparta.
Egerton, Anna Elizabeth,	Alston.
Egerton, Bettie Darein,	Alston.
Eldridge, Bettie Frances,	Bentonville.
Eldridge, Young Wyley,	Bentonville, R. No. 2.
Erekson, Mary Alice,	Seaboard.
Eure, Judith,	Corapeake.
Evans, Jennie Draughan,	Fayetteville.
Evans, Willie McDaniels,	Fayetteville.
Eveleigh, Ruth,	Red Springs.
Fairley, Katherine Clifton Barry,	Rockingham.
Farmer, Harry Lee,	Wilmington.
Farrow, Anna C.,	Winston-Salem.
Feimster, Walter Connor, Jr.,	Newton.
Fennell, Mrs. Hettie Elizabeth,	Wilmington.
Ferrell, Elizabeth,	Snowden.
Finley, Grace,	Marion.
Fisher, Mary Belle,	St. Pauls.
Fleming Myrtha Frances,	Raleigh.
Fogleman, Jewelle,	Moriah.
Forbes, Louise,	Farmville.
Foster, John Wesley,	Cleveland, R. No. 2.
Franck, Virginia Lee,	Richlands.
Franklin, Earl Ruffin,	Raleigh, R. No. 4.
Franklin, Minnie Lula,	Raleigh.
Furman, Annie Winston,	Oxford.
George, Mabel Elizabeth,	Mount Airy.
Gibson, Lida May,	Siloam Springs, Ark.
Gilbert, Prilla,	Dunn.
Goode, Ruby Elizabeth,	Clinton.
Gooding, Sallie Cox,	Trenton.
Gourley, Mary Penick,	Harrisburg.
Graham, Carrie,	Red Springs.
Graham, Flora,	Fayetteville.
Graham, Frank Porter,	Chapel Hill.
Grantham, Victor Hugo,	Bentonville.
Graves, Leah Carolyn,	Wake Forest.
Green, Allene Benton,	Durham.
Green, Betty,	Shelby.
Green, Fannie Irene,	Durham.
Green, Mary,	Shelby.
Green, Minnie,	Gates.

Greene, Mittie Leonora,	Marshville.
Grimes, Alice,	Coats.
Grimes, Ira Kimbrough,	Lexington.
Gullick, Melva,	Belmont.
Hales, Emma,	Rocky Mount.
Hall, Eunice Jones,	Southmont.
Hall, Ella Umstead,	Stem.
Hall, Kerby,	Cooper.
Hancock, Mary Royall,	Oxford.
Hargrave, Elizabeth Walker,	Battleboro.
Hargrave, Lyndon Lane,	Battleboro.
Harlow, Louise Worthington,	Wilmington.
Harris, Ella,	Youngsville.
Harris, Huldah Bernice,	Roxboro.
Harris, Roxie Peebles,	Mapleville.
Hart, Irma,	Dabney.
Hege, Edward Luther,	Raleigh.
Helms, Amy,	Unionville.
Henry, Ethel,	Ivanhoe.
Henry, Louise Shaw,	Ivanhoe.
Herring, Ella,	Delway.
Herring, Lucy,	Delway.
Hester, Clara Belle,	Whiteville, R. No. 1.
Hester, Foy,	Oxford.
Hester, Swanne,	Rutherfordton.
Hiatt, Charles Edward,	Pilot Mountain.
Highsmith, Mamie,	Fayetteville.
Hill, Addye,	Rutherfordton.
Hill, Josephine Elizabeth,	Rocky Mount.
Hinton, Katherine,	Elizabeth City.
Hobbs, Allie,	Corapeake.
Hodges, Irene May,	Danville, Va.
Hogan, Alda,	Chapel Hill.
Holloway, Annie Lee,	West Durham.
Holloway, Maggie Elizabeth,	Durham.
Holloway, Pearl Shaw,	Gorman.
Holmes, Callie,	Creswell.
Holmes, Clarence Carlyle,	Olin.
Holmes, Sallie Myrtle,	Creswell.
Holt, Blanche,	Holly Springs.
Holt, John Ransome, Jr,	Princeton.
Horne, Connie May,	Monroe.
Horne, Lula,	Snead's Ferry.
Horne, Sara Julia,	Snead's Ferry.
House, Robert Burton,	Thelma.

Howard, Hannah,	Oxford.
Howard, Vara,	Salemburg.
Hunter, Essie Dale,	Holly Springs.
Huntley, Eva Deborah,	Wadesboro.
Hurley, Bernice Elizabeth,	Biscoe.
Isaacs, Robert Lucian,	Durham.
Jackson, Florence Goodwin,	Louisville, Ky.
Jackson, Hallie Mae,	Roxboro.
Jackson, Hosea M.,	Clinton.
Jackson, Walter Ira,	Cooper.
Jeffcoat, Cora Pearle,	Graham.
Jerome, Annie Cora,	Aydlett.
Johnson, Claudia,	Ridge Spring, S. C.
Johnson, Nell,	Aberdeen.
Johnson, Roxie Robinia,	Goldsboro.
Johnston, Mrs. Fannie,	Dover.
Johnston, Kenneth,	Lowryville, S. C.
Johnston, Ophelia Calhoun,	Gilbert, Minn.
Jones, Annie Randolph,	Manteo.
Jones, Baxter Columbus,	Gay.
Jones, Ora Lee,	Louisburg.
Jones, Rassie Merritt,	Woodsdale.
Jordan, Belle,	Battleboro.
Kelly, Elma,	Sanford.
Kelly, Elizabeth,	Smithfield.
Kemp, Ione Virginia,	Reidsville.
Kendall, Glennie,	Hamlet.
Kendall, Sallie Jay,	Hamlet.
Kerr, William Clarke Doub,	Greensboro.
Ketchie, Zulia,	Mount Ulla.
Kilpatrick, Mary Knight,	Zebulon.
King, Carrie Rebecca,	Wilmington.
Kyser, Hallie Wills,	Rocky Mount.
Langdale, Pearle Elizabeth,	Beaufort.
Lansdell, Nancy Elizabeth,	Semora.
Lassiter, Bessie Leone,	Corapeake.
Lassiter, Mrs. Corah,	Smithfield.
Latta, Huldah,	Oxford.
Lawrence, Clara Louise,	Apex.
Lawson, Mary Della,	Rougemont.
Lee, Maude Elizabeth,	Greenville.
Lee, William Refton,	Newton Grove.
Leighton, Mrs. Frank,	Scotland Neck.
Lippard, Mary Ethel,	Concord.
Livingstone, Ollie Vick,	St. Pauls.

Lloyd, Elise Randolph,	Durham.
Lloyd, Grace Pearl,	Hillsboro.
Loadholt, Zelle,	Fairfax, S. C.
Long, Jesse Melvin,	Mollie.
Lyerly, Beulah,	Granite Quarry.
McCauley, Sudie Gertrude,	Chapel Hill.
McCray, Mary Peel,	Altamahaw.
McCullen, Emma Bryan,	Durham.
McDade, Brodie Banks,	Hillsboro, R. No. 2.
McDade, Lila,	Hillsboro.
McDaniel, Lyrl,	Kinston.
McEachern, Annie Baker,	Raeford.
McGehee, Anne Ludlow,	Chapel Hill.
McKenzie, Ila,	Dillon, S. C.
McKeown, Howard Hoffman,	Mocksville.
McLauchlin, Elizabeth,	Carthage.
McLean, Kate,	Cameron.
McLean, Mary,	Cameron.
McLean, Nona,	Rowland.
McLeod, Katie,	Elizabethtown.
MacLeod, Martha Rebecca,	Red Springs.
McNeill, Effie Buie,	Red Springs.
McNeill, Effie Mary,	Wagram.
McNeill, Margaret Ann,	Laurinburg.
McPhail, John William,	Lumberton, R. No. 2.
McPherson, Lula Belle,	Cameron.
MacRae, Ruth Martin,	Mount Gilead.
Macon, Sallie Louise,	Louisburg.
Mangum, Charles Preston,	Kinston.
Mann, Edna Earle,	Raleigh.
Mann, Edith Matilda,	Raleigh.
Mann, Edward Wilson,	Elizabeth City.
Mann, Margaret Emma,	Raleigh.
Manning, Carrie,	Parmele.
Markham, Lela Belle,	Durham.
Markham, Ruby Lee,	Durham.
Marsh, Cullie Gillespie,	Charlotte.
Massey, Mamie Estelle,	Durham.
Matheson, Mary Myrtle,	Mount Gilead.
Matheson, Nell,	Mount Gilead.
Meadows, Cora Frances,	Moriah.
Meadows, Vera,	Moriah.
Melvin, Ruby Alma,	Fayetteville.
Memory, Mary,	Whiteville.
Meredith Katie Lou,	Wilmington.

Mewborn, Carlotta,	Kinston.
Miller, Olive Jean,	Alliance.
Mitchell, Mary Long,	Durham.
Mitchell, Ozias Brayton,	Chapel Hill.
Mitchell, Zeula Clyde,	Youngsville.
Mizelle, William Henderson,	Robersonville.
Modlin, Elsie,	Rocky Mount.
Moore, Edna Earl,	Macclesfield.
Morris, Carrie Esther,	East Durham.
Morris, Katiebet,	Franklinton.
Morris, Samuel Jesse,	Mesic.
Morrison, Mary Louise,	Concord.
Morrow, Adelaide,	Mebane, R. No. 4.
Morrow, Helen Armstrong,	Graham.
Moseley, Janie,	Snow Hill.
Moseley, Marie Christian,	Kinston.
Moseley, Orie,	Kinston.
Moser, John William,	Rural Hall.
Moye, Fannie,	Farmville.
Murphy, Lillie Mae,	Middleburg.
Myers, Floy,	Marshville.
Nance, Cammie Elena,	Farmer.
Nance, Lelabel,	Evergreen.
Nance, Lillian Nina,	Lumberton.
Nelson, Charles Etheridge,	Murfreesboro.
Newton, Margaret Olinda,	Salemburg.
Nicholson, Myrtle,	Burlington, R. No. 1.
Nicholson, Sibyl Darden,	Guilford College.
Nicolson, Elizabeth Quarles,	Salisbury.
Nipper, Charity,	Lowell.
Nixon, Ella Mae,	Edenton.
Norman, Margaret Julia,	Spencer.
Norman, Mamie Wilma,	Spencer.
Norris, Lina Banks,	Holly Springs.
Norris, Roy Haddon,	Holly Springs.
Oliver, Rachel Annie,	Marietta.
Otwell, Annie Myrtle,	Greensboro, R. No. 1.
Outlaw, Addie Maye,	Durham.
Outlaw, Bela,	Durham.
Outlaw, Leone Ella,	Kinston.
Outlaw, Myra,	Kinston.
Page, Carrie Lily,	Buie's Creek.
Paris, Helen Adelaide Clopton,	Oxford.
Paris, Mrs. James Yancey,	Oxford.
Parker, Josie Katherine,	Potecasi.
Parrott, Mercer Cranor,	Kinston.

Paschall, Josephine Alma,	Norlina.
Pass, Lucile Raye,	Roxboro.
Patterson, Malona,	Burlington.
Peck, Lena Jerome,	Gold Hill.
Peele, Elma Iola,	George.
Peeler, Beulah,	Salisbury.
Pemberton, Myrtle,	Concord.
Pendergraph, Essie,	Durham.
Penny, Ethelyn,	Neuse.
Penny, Mrs. Lillie Standhope,	Neuse.
Perry, Burma,	Youngsville.
Perry, Estelle,	Macon.
Phillips, Kate Fuller,	Ashboro.
Phillips, Lizzie,	Ashboro.
Phillips, Samuel Joab,	Bear Creek.
Pickard, Carrie Lee,	Chapel Hill.
Pickard, Nellie Mercer,	Wilmington.
Pinnell, Frank Edgerton,	Afton.
Plyler, Ralph Johnson,	Cleveland.
Poole, Frances Belle,	Clayton.
Pool, Maggie Ethel,	Rougemont.
Pool, Ralph,	Elizabeth City.
Pratt, Loula,	Efland.
Price, Lemuel Alexander,	Unionville.
Price, Mary Ethel,	Charlotte.
Propst, Beulah Myrtle,	Hickory, R. No. 3.
Pulliam, Mary,	Winston-Salem.
Putnam, Ona,	Waco.
Query, Maggie Wallace,	Pineville.
Quinn, Janet,	Salisbury.
Ragsdale, Willie Ernestine,	Greenville.
Ramseur, John Hunter,	Bessemer City.
Ratchford, Alice,	Waxhaw, R. No. 1.
Rawlins, Gladys,	Oxford.
Ray, Dorothy Carolina,	Raleigh.
Reeves, Reba Lucile,	Hillsboro.
Reid, Ada Rosanna,	Salisbury.
Reid, Anna,	Pilot Mountain.
Reid, Jennie,	Pilot Mountain.
Reid, Katheryn,	Jackson.
Reid, Samuel Jones,	Cleveland.
Reinhardt, Edna,	Stanley.
Riddick, Amy,	Gatesville.
Ridge, Clyde Franklin,	Edgar.
Riggins, Mattie Eulela,	Matthews.
Rigsbee, Annie Laurie,	Durham.

Robbins, Minnie,	Sharpsburg.
Roberts, Hattie,	Wentworth.
Roberts, Myrtle,	Wentworth.
Robertson, Miriam St. Clair,	Raleigh.
Robinson, Mabel,	Monroe.
Robinson, Melvin,	Atlantic.
Rogers, Addie Mae,	Roxboro.
Rogers, Bertha Mae,	Durham, R. No. 4.
Rollins, Meador May,	Apex.
Rose, Annie Evans,	Laurinburg.
Rose, Junius Harris,	Franklinton.
Ross, Edna Earl,	Fort Mill, S. C.
Rowe, Sallie Willey,	Boykins, Va.
Rucker, Jimmie Louise,	Goldsboro.
Russell, Kate,	Roxboro.
Russell, Minnie,	Clarksville, Va.
Scarborough, Eugenia,	Kinston.
Scarborough, Vivian,	Kinston.
Scott, Mrs. Maude Tayloe,	Milton.
Sellers, Dona,	King's Mountain.
Shaw, Mary,	Oxford.
Shoe, Mittie Frances,	Rockwell.
Shotwell, Janie,	Stovall.
Shotwell, Mary Graves,	Oxford.
Sinclair, John Frank,	Rowland.
Sitterson, Lillie Murden,	Roper.
Sledge, Clara Belle,	Louisburg.
Sledge, Irene,	Louisburg, R. No. 2.
Sloan, Sophie,	Charlotte, R.F.D.
Smith, Artemisia,	Chadbourn.
Smith, Bessie,	Whiteville.
Smith, Clarissa Lillie,	Whiteville.
Smith, Edward Hanson,	Hope Mills, R. No. 2.
Smith, Fannie Edna,	Raleigh, R. No. 4.
Smith, Grace Lee,	Lincolnton.
Smith, Josephine Valentine,	Rocky Mount.
Smith, Lottie Lee,	Lemon Springs.
Smith, Mary Annie,	Shelby.
Smith, Richard Jasper,	Hope Mills.
Snotherly, Ruth Irene,	Albemarle.
Somers, Minnie Gaston,	Mount Airy.
Speight, Margaret,	Windsor.
Spencer, George Washington,	Trinity, R. No. 1.
Spencer, Willie Blanche,	Roxboro.
Spicer, Clara,	Goldsboro.
Sprout, Helen Louise,	Athens, Ga.
Stanley, Cinderella,	Pleasant Hill.

Stell, Daphne,	Wakefield.
Stell, Lucille Christine,	Wakefield.
Stuart, Mary Elizabeth,	Laurinburg.
Stewart, Meta Lacy,	Laurinburg.
Swindell, Ethel,	Belhaven.
Sykes, Lillian Lula,	Mebane.
Tally, Fuchsia Elmer,	Winston-Salem.
Taylor, James Marshall,	Jacksonville.
Terry, Una Mae,	Danville, Va.
Thackston, Jean,	Raleigh.
Thackston, Sue Waterous,	Raleigh.
Thomas, Eva,	Stokes.
Thomas, Ruth,	Sanford.
Thomas, Valira,	Wilmington.
Thomas, William Renn,	Miami, Fla.
Thompson, Margaret Lois,	McDonald.
Thorne, Mrs. Florence,	Farmville.
Thorne, Sue,	Farmville.
Thornton, Esther,	Dunn.
Tillinghast, Ray,	Fayetteville.
Tingle, William Resdon,	Arapahoe.
Townsend, Kathleen,	Henderson.
Trevathan, Jesse Ernest,	Rocky Mount.
Trollinger, Bessie,	Leasburg.
Turner, Floreta,	North Wilkesboro.
Tyer, Annie Lee,	Farmville.
Umstead, Rida Mae,	Stem.
Upchurch, Mrs. Estelle Harward,	Durham.
Vann, Eddie Mae,	Como.
Varner, Agnes Nelson,	Gibsonville.
Waff, Ruth Palmer,	Jonesboro.
Walker, Carl Hampton,	Coinjock.
Walker, Lora Evelyn,	Reidsville.
Walker, Mary Frances,	Reidsville.
Walker, Samuel Ansell,	Poplar Branch.
Waller, Mamie,	Raleigh.
Walston, Mary Louise,	Pinetops.
Walton, Lillian Amelia,	Woodsdale.
Warlick, Margaret,	Newell.
Warren, Elizabeth Blount,	Washington.
Welch, Ada Burt,	Holly Springs.
West, Nellie Julia,	Dunn.
West, Oliver,	Dunn.
Westbrook, Eunice Alberta,	Newton Grove.

Wetherington, Joseph Harper,	New Bern.
Wheeler, Mrs. Edith James,	Chapel Hill.
White, Lelia,	Henderson.
White, Marion Oswald,	Hobgood.
White, Pearle,	Belvidere.
Whitehurst, Maggie,	Bethel.
Whitehurst, Mantie,	Bethel.
Whitesell, Flora,	Durham.
Whitley, Daniel Polycarp, Jr.,	Albemarle, R. No. 3.
Whitley, Ida Victoria,	Albemarle.
Whitley, Ruth Frances,	Wake Forest.
Wicker, Carrie May,	Sanford.
Wilkins, Bettye,	Linden.
Willeford, Estelle,	Kings Mountain.
Williams, Bessie,	Drum Hill.
Williams, Calvin Ursinus,	Chadbourn.
Williams, Estelle,	Parmele.
Williams, Hodgie Ballard,	Louisburg.
Williams, Jane,	Linden.
Williams, Juanita,	Apex.
Williams, Mrs. J. M.,	Chapel Hill.
Williams, Kate,	Cofield.
Williams, Lautina,	Kittrell.
Williams, Margaret,	Gates.
Williams, Margaret Anne Jeffress,	Kittrell.
Williams, Susie,	Reidsville.
Williamson, Winifred,	Hope Mills.
Wilson, Carrie,	Dunn.
Wilson, Eunice Lash,	Rural Hall.
Wilson, Verd,	Durham.
Winecoff, Homer Henderson,	Concord.
Winkler, Claudia Augusta,	Winston-Salem.
Winstead, Bessie May,	Roxboro.
Winston, Marcellus Eaton,	Youngsville.
Winston, Mrs. Patrick Henry,	Chapel Hill.
Womble, Lollie Drusilla,	Chapel Hill.
Woodley, Marion,	Elizabeth City.
Woody, Eugenia Belle,	Woodsdale.
Woody, Marie,	Woodsdale.
Wooten, Lois,	Chadbourn.
Wrenn, Sallie Gladys,	Roxboro.
Yarboro, Floy Dixon,	Hope Mills.
Yates, Gladys,	Apex.
Yates, Luna Evelyn,	Merry Oaks.
Yoder, Clara Belle,	Hickory, R. No. 1.
Yoder, Lucy Emma,	Hickory.

GENERAL SUMMARY

Boards of Government and Instruction and Other Officers

Trustees		81
Professors		49
Instructors		16
Fellows and Assistants		32
Officers of Administration		20

Students

The College:		
Senior Class	80	
Junior Class	123	
Sophomore Class	171	
Freshman Class	322	
Special Students	54	
		750
The Graduate School		36
The School of Law:		
Students in Law	123	
Special Students in Law	10	
		134
The School of Medicine:		
Second-year Students	41	
First-year Students	36	
		77
The School of Pharmacy:		
Third-year Students	2	
Second-year Students	12	
First-year Students	40	
Special Students	8	
		62
The Summer School (1915):		
Candidates for Degrees:		
Undergraduates	135	
Graduates	58	
		193
Normal Students	538	
Total number of Regular Students		1,252
Deduct for names repeated		95
		1,157
Total number of Normal Students		538
Grand Total		1,695

THE ASSOCIATIONS OF THE ALUMNI

THE GENERAL ASSOCIATION

JULIAN S. CARR, President.
WALTER MURPHY, Secretary.

The Alumni Council

ROBERT BINGHAM, *Chairman*, Asheville, N. C.
WALTER MURPHY, *Secretary*, Salisbury, N. C.
J. Y. JOYNER, *Treasurer*, Raleigh, N. C.

1915*

W. S. BERNARD, Chapel Hill, N. C.
J. Y. JOYNER, Raleigh, N. C.
W. H. SWIFT, Greensboro, N. C.
R. H. SYKES, Durham, N. C.
GEORGE STEPHENS, Charlotte, N. C.

1916

W. J. ANDREWS, Raleigh, N. C.
A. L. COX, Raleigh, N. C.
L. I. MOORE, New Bern, N. C.
J. A. PARKER, Charlotte, N. C.
A. M. SCALES, Greensboro, N. C.

The plan of organization adopted by the General Association of the Alumni on June 2, 1911, is as follows:—1. A deliberative body to be known as *The General Assembly of the Alumni of the University of North Carolina*, composed of *delegates* from the Local Associations to meet yearly on such day of Commencement Week as has been previously arranged. 2. A directing board of fifteen to be known as *The Alumni Council*, elected by the General Assembly, the officers of which board shall be the officers of the General Assembly. 3. Local Associations to be known by the names of their respective counties and towns. For a printed form of this constitution in detail application should be made to Mr. Wm. S. Bernard, Chapel Hill, N. C.

Membership in the General Association of the Alumni includes all persons who have matriculated at the University of North Carolina in any department except the Summer School and all who are or have been officers of the institution.

*Term of office expires at end of Spring Term of the University of the year indicated.

LOCAL ASSOCIATIONS

Alamance County Alumni Association, Burlington, N. C.
W. H. Carroll, *President.*
E. S. W. Dameron, *Secretary.*

Anson County Alumni Association, Wadesboro, N. C.
W. L. McKinnon, *President.*
W. C. Hardison, *Secretary.*

Beaufort County Alumni Association, Washington, N. C.
S. C. Bragaw, *President.*
C. F. Cowell, *Secretary.*

Bertie County Alumni Association, Windsor, N. C.
Francis D. Winston, *President.*
Francis Gillam, *Secretary.*

Buncombe County Alumni Association, Asheville, N. C.
J. C. Martin, *President.*
L. M. Bourne, *Secretary.*

Cabarrus County Alumni Association, Concord, N. C.
G. V. Tilley, *President.*
G. A. Carver, *Secretary.*

Caldwell County Alumni Association, Lenoir, N. C.
J. G. Abernethy, *President.*
L. A. Dysart, *Secretary.*

Catawba County Alumni Association, Newton, N. C.
W. A. Self, *President.*
S. H. Farabee, *Secretary.*

Chatham County Alumni Association, Pittsboro, N. C.
H. A. London, *President.*
I. S. London, *Secretary.*

Cherokee County Alumni Association, Murphy, N. C.
J. H. Dillard, *President.*
G. B. Strickland, *Secretary.*

Cherryville Alumni Association, Cherryville, N. C.
M. A. Stroup, *President.*
S. E. McNeely, *Secretary.*

Craven County Alumni Association, New Bern, N. C.
B. F. Huske, *President.*
William Dunn, Jr., *Secretary.*

Cumberland County Alumni Association, Fayetteville, N. C.
C. G. Rose, *President.*
J. A. McLean, Jr., *Secretary.*

DAVIDSON COUNTY ALUMNI ASSOCIATION, Lexington, N. C.
Z. V. Walser, *President.*
J. F. Spruill, *Secretary.*

DURHAM COUNTY ALUMNI ASSOCIATION, Durham, N. C.
W. D. Carmichael, *President.*
J. S. Manning, Jr., *Secretary.*

EDGECOMBE COUNTY ALUMNI ASSOCIATION, Tarboro, N. C.
——— ———, *President.*
George Howard, *Secretary.*

ELON COLLEGE ALUMNI ASSOCIATION, Elon College, N. C.
W. C. Wicker, *President.*
R. C. Cox, *Secretary.*

FORSYTH COUNTY ALUMNI ASSOCIATION, Winston-Salem, N. C.
Howard A. Rondthaler, D.D., *President.*
Jas. A. Gray, Jr., *Secretary.*

GASTON COUNTY ALUMNI ASSOCIATION, Gastonia, N. C.
J. S. Wray, *President.*
E. R. Rankin, *Secretary.*

GRANVILLE COUNTY ALUMNI ASSOCIATION, Oxford, N. C.
R. H. Lewis, Jr., *President.*
F. M. Pinnix, *Secretary.*

GUILFORD COUNTY ALUMNI ASSOCIATION, Greensboro, N. C.
Clem G. Wright, *President.*
Marmaduke Robins, *Secretary.*

GUILFORD COUNTY ALUMNI ASSOCIATION, High Point, N. C.
W. P. Ragan, *President.*
T. J. Gold, *Secretary.*

HARNETT COUNTY ALUMNI ASSOCIATION, Lillington, N. C.
J. R. Baggett, *President.*
George Elliott, *Secretary.*

HENDERSON COUNTY ALUMNI ASSOCIATION, Hendersonville, N. C.
Michael Schenck, *President.*
H. M. Smith, *Secretary.*

IREDELL COUNTY ALUMNI ASSOCIATION, Mooresville, N. C.
E. W. Brawley, *President.*
——— ———, *Secretary.*

JOHNSTON COUNTY ALUMNI ASSOCIATION, Smithfield, N. C.
——— ———, *President.*
H. P. Stevens, *Secretary.*

LEAKSVILLE-SPRAY ALUMNI ASSOCIATION, Spray, N. C.
A. D. Ivie, *President.*
W. J. Gordon, *Secretary.*

Lee County Alumni Association, Sanford, N. C.
J. D. Gunter, *President.*
D. L. St. Clair, *Secretary.*

Lenoir County Alumni Association, Kinston, N. C.
I. M. Hardy, *President.*
J. G. Dawson, *Secretary.*

Lincoln County Alumni Association, Lincolnton, N. C.
———, ———, *President.*
K. B. Nixon, *Secretary.*

Macon County Alumni Association, Franklin, N. C.
S. H. Lyle, Jr., *President.*
R. D. Sisk, *Secretary.*

Martin County Alumni Association, Williamston, N. C.
Sylvester Hassell, *President.*
H. A. Biggs, *Secretary.*

Mecklenburg County Alumni Association, Charlotte, N. C.
J. M. Oldham, *President.*
M. L. Ritch, *Secretary.*

New Hanover County Alumni Association, Wilmington, N. C.
J. O. Carr, *President.*
Louis Goodman, *Secretary.*

Orange County Alumni Association, Hillsboro, N. C.
John W. Graham, *President.*
S. P. Lockhart, *Secretary.*

Orange County Alumni Association, Chapel Hill, N. C.
Kemp P. Battle, *President.*
Collier Cobb, *Secretary.*

Pasquotank County Alumni Association, Elizabeth City, N. C.
J. Q. A. Wood, *President.*
J. K. Wilson, *Secretary.*

Perquimans County Alumni Association, Hertford, N. C.
Affiliates with Pasquotank County Association.

Pitt County Alumni Association, Greenville, N. C.
F. G. James, *President.*
A. T. Moore, *Secretary.*

Randolph County Alumni Association, Ashboro, N. C.
A. C. McAlister, *President.*
H. M. Robins, *Secretary.*

Richmond County Alumni Association, Rockingham, N. C.
W. N. Everett, *President.*
L. J. Bell, *Secretary.*

ROBESON COUNTY ALUMNI ASSOCIATION, Red Springs, N. C.
D. P. McEachern, *President.*
Hamilton McMillan, *Secretary.*

ROBESON COUNTY ALUMNI ASSOCIATION, Lumberton, N. C.
T. A. McNeill, *President.*
Dickson McLean, *Secretary.*

ROCKY MOUNT ALUMNI ASSOCIATION, Rocky Mount, N. C.
W. C. Woodard, Jr., *President.*
K. D. Battle, *Secretary.*

ROWAN COUNTY ALUMNI ASSOCIATION, Salisbury, N. C.
Walter Murphy, *President.*
A. T. Allen, *Secretary.*

ROWLAND ALUMNI ASSOCIATION, Rowland, N. C.
Graham McKinnon, *President.*
L. B. Gunter, *Secretary.*

RUTHERFORD COUNTY ALUMNI ASSOCIATION, Rutherfordton, N. C.
F. B. Rankin, *President.*
D. F. Morrow, *Secretary.*

SAMPSON COUNTY ALUMNI ASSOCIATION, Clinton, N. C.
F. B. Johnson, *President.*
L. C. Kerr, *Secretary.*

SURRY COUNTY ALUMNI ASSOCIATION, Mount Airy, N. C.
E. W. Turlington, *President.*
A. D. Folger, *Secretary.*

UNION COUNTY ALUMNI ASSOCIATION, Monroe, N. C.
W. B. Love, *President.*
J. C. M. Vann, *Secretary.*

WAKE COUNTY ALUMNI ASSOCIATION, Raleigh, N. C.
R. S. Busbee, *President.*
J. B. Cheshire, Jr., *Secretary.*

WAYNE COUNTY ALUMNI ASSOCIATION, Goldsboro, N. C.
Thos. O'Berry, *President.*
W. F. Taylor, *Secretary.*

WILKES COUNTY ALUMNI ASSOCIATION, Wilkesboro, N. C.
R. N. Hackett, *President.*
J. A. Rousseau, *Secretary.*

WILSON COUNTY ALUMNI ASSOCIATION, Wilson, N. C.
T. J. Hadley, *President.*
Alvis Patterson, *Secretary.*

ATLANTA ALUMNI ASSOCIATION, Atlanta, Ga.
Michael Hoke, *President.*
J. W. Speas, *Secretary.*

HARVARD TECH. ALUMNI ASSOCIATION, Boston, Mass.
K. C. Royall, *President.*
C. S. Venable, *Secretary.*

BIRMINGHAM ALUMNI ASSOCIATION, Birmingham, Ala.
Warren Kluttz, *President.*
Wade Oldham, *Secretary.*

NEW YORK ALUMNI ASSOCIATION, New York, N. Y.
Augustus Van Wyck, *President.*
Francis A. Gudger, *Secretary.*

NORFOLK ALUMNI ASSOCIATION, Norfolk, Va.
——— ———, *President.*
G. R. Berkeley, M.D., *Secretary.*

SCHEDULE OF RECITATIONS, 1916-1917

	8:30	9:45	10:40
	A	B	C
MONDAY	83 Chem.	11–12 Chem.	8 Chem.
	3, 22 Educ.	33 Chem. (F.)	33 Chem. (F.)
	21, 22 El. Eng'g	84 Chem.	9–10 Civ. Eng'g
	1–2 Eng. IX	3–4 Civ. Eng'g	23–24 Civ. Eng'g
	1–2 Eng. X (Def.)	5–6 Educ.	3–4 Draw'g (W. F.)
	3–4 Eng. II	41–42 Educ.	23–24 Educ.
	13–14 Eng. I (W. F.)	13 El. Eng'g	53–54 Educ.
	27–28 Eng.	14 El. Eng'g	55–56 Educ.
	1–2 Geol.	1–2 Eng. IV	11–12 El. Eng'g
	A Ger. I	13–14 Eng. II (W. F.)	1–2 Eng. III
WEDNESDAY	1–2 Ger. II	21–22 Eng.	55–56 Eng.
	31–32 Greek	71–72 Eng.	21–22 Geol.
	1–2 Latin II	A French II	1–2 Greek
FRIDAY	1–2 Math. I	1–2 French I	1–2 Hist. II
	1–2 Math. III	51–52 Geol. (W.)	11–12 Hist.
	1–2 Math. V	A Ger. IV	17–18 Hist.
	13–14 Math.	3–4 Greek	1–2 Latin I
	5–6 Phys. (M. W.)	1–2 Hist. I	1–2 Latin IV
		23, 22 Hist.	1–2 Phys. I
		3–4 Latin IV	1–2 Rur. Econ.
		3–4 Latin V	1–2 Zool. (M. W.)
		1–2 Math. VIII	
		1–2 Math. X	
		5–6 Math. (W. F.)	
		15–16 Philos.	
	F	G	H
TUESDAY	3–4 Botany (T.)	5–6 Botany (S.)	1–2 Botany (T. Th.)
	5–6 Botany (S.)	61–62 Chem.	5–6 Botany (S.)
	61–62 Chem. (S.)	15–16 Civ. Eng'g	18 Chem. (T. Th.)
	81–82 Chem.	1–2 Draw'g II (S.)	25–26 Civ. Eng'g
	11–12 Civ. Eng'g	13–14 Econ. (T. Th.)	1–2 Draw'g I (T. Th.)
	1–2 Draw'g II (S.)	57–58 Educ. (T. Th.)	25–26 Educ. (T. Th.)
	31–32 El. Eng'g (T.Th.)	13 El. Eng'g	5 El. Eng'g (T. Th.)
	3–4 Eng. III	18 El. Eng'g (T. Th.)	33 El. Eng'g (T. Th.)
	15–16 Eng. II (T. Th.)	1–2 Eng. II	34 El. Eng'g (T. Th.)
THURSDAY	23–24 Geol. (T. Th.)	1–2 Eng. VI	1–2 Eng. V
	51–52 Geol. (S.)	3–4 Eng. I	1–2 Eng. XI (Def.)
	1–2 Ger. IV	7–4 Eng.	15–16 Eng. I (T. Th.)
SATURDAY	41–42 Ger.	37–38 Eng.	23–24 Eng.
	A Greek (T.)	1–2 French II	41–42 Eng.
	5–6 Greek (T.)	1–2 French IV	A French III
	1–2 Lat. III (T.)	15–16 French	5–6 French
	1–2 Lat. II (Th.)	11–12 Geol. (T. Th.)	A Ger. V
	1–2 Math. VII (T.)	A Ger. III	11–12 Greek (T. Th.)
	1–2 Math. IX (T.)	1–2 Ger. III	1–2 Italian
	1–2 Math. I (Th.)	43–44 Greek	3–4 Latin I
	1–2 Math. III (Th.)	1–2 Hist. V	3–4 Latin III
	1–2 Math. V (Th.)	21–22 Latin (T. Th.)	1–2 Libr. Adm.
	B Phys. (Th.)	31–32 Latin	19–20 Philos.
	3–4 Phys. (T.)	53–54 Latin (T. Th.)	1–2 Phys. II
		1–2 Philos.	1–2 Spanish
		A–B Physics.	

SCHEDULE OF RECITATIONS, 1916-1917—Continued

	11:35	12:30	2:30
	D	E	
MONDAY WEDNESDAY FRIDAY	1-2 Chem. 19-20 Civ. Eng'g 3-4 Draw'g (W. F.) 5-6 Draw'g (W. F.) 3-4 Econ. 51-52 Educ. 3-4 Eng. V 17-18 Eng. 67-68 Eng. 1-2 French III 3-4 French 7-8 Geol. 25-26 Ger. A Greek 21-22 Greek 15-16 Hist. 1-2 Latin III 3-4 Latin II 35-36 Latin 1-2 Math. VII 1-2 Math. IX 11-12 Math.	5-6 Draw'g (W. F.) 1-2 Educ. 59-60 Educ. 3-4 Eng. IV 5-6 Eng. (M. W.) 73-74 Eng. A French IV A Ger. II 23-24 Ger. 1-2 Hist. IV 7-8 Hist. 1-2 Latin V 1-2 Latin VI 1-2 Math. II 1-2 Math. IV 1-2 Math. VI 3-4 Math. II 11-12 Philos. (M. F.) 7-8 Phys. (W. F.) 5-6 Rur. Econ.	44 Educ. 11-12 Eng. I (M.) Laboratory: 1-2 Bot. II (W.) 3-4 Bot. (F.) 1-2 Chem. I (M.) 1-2 Chem. III (W.) 1-2 Chem. V (F.) 33 Chem. (M. W.) 41-42 Chem. 84 Chem. (F.) 48-49 Chem. 74 Chem. (M.) 11-12 Geol. (F.) 1-2 Phys. I (M.) 3-4 Phys. (M.) 1-2 Zool. II (F.) 3-4 Zool. (M. W.)
	I	K	
TUESDAY THURSDAY SATURDAY	5-6 Botany (S.) 1-2 Civ. Eng'g 1-2 Draw'g I (T. Th.) 1-2 Econ. 27-28 Educ. (T. Th.) 61-62 Educ. (T. Th.) 9-10 El. Eng'g (T. Th.) 33 El. Eng'g (S.) 1-2 Eng. I 1-2 Eng. VII 59-60 Eng. A French I A French V 1-2 Ger. I 61-62 Greek (T. Th.) 1-2 Hist. III 3-4 Hist. 5-6 Latin (S.) 11-12 Latin (T. Th.) 3-4 Math. I 3-4 Spanish	5-6 Botany (S.) 21-22 Civ. Eng'g (T.Th.) 23-24 Civ. Eng'g (Th.) 15-16 Econ. (T. Th.) 1-2 Eng. VIII 45-46 Eng. 21-22 Ger. 1-2 Greek (Th.) 5-6 Hist. (T. Th.) 9-10 Hist. (T. Th.) 1-2 Latin V (T.) 1-2 Latin VI (T.) 1-2 Latin I (Th.) 1-2 Latin IV (Th.) 1-2 Math. II (T.) 1-2 Math. IV (T.) 1-2 Math. VI (T.) 1-2 Math. VIII (Th.) 1-2 Math. X (Th.) 3-4 Philos. (T. Th.) 13-14 Philos. (T. Th.) 11-12 Phys. (T. Th.)	A Educ. 11-12 Eng. II (T.) 11-12 Eng. III (Th.) Laboratory: 1-2 Bot. I (T.) 3-4 Bot. (Th.) 1-2 Chem. II (T.) 1-2 Chem. IV (Th.) 31-32 Chem. (T. Th.) 48-49 Chem. (T. Th.) 1-2 Draw'g II (Th.) 3-4 Geol. (T. Th.) 1-2 Phys. II (T.) 3-4 Phys. (Th.) 1-2 Zool. I (Th.) 3-4 Zool. (Th.)

SCHEDULE OF EXAMINATIONS

First Day K	Second Day A	Third Day B	Fourth Day C	Fifth Day D
5–6 Botany	83 Chem.	11–12 Chem.	8 Chem.	1–2 Chem.
21–22 Civ. Eng'g	3 Educ.	84 Chem.	9–10 Civ. Eng'g	19–20 Civ. Eng'g
15–16 Econ.	22 Educ.	3–4 Civ. Eng'g	23–24 Civ. Eng'g	5–6 Draw'g
3–4 Eng. (All Sections)	21 El. Eng'g	5–6 Educ.	3–4 Draw'g	3–4 Econ.
45–46 Eng.	22 El. Eng'g	41–42 Educ.	23–24 Educ.	51–52 Educ.
21–22 Ger.	13–14 Eng.	13 El. Eng'g	53–54 Educ.	17–18 Eng.
5–6 Hist.	27–28 Eng.	14 El. Eng'g	55–56 Educ.	67–68 Eng.
9–10 Hist.	1–2 Geol.	13–14 Eng.	11–12 El. Eng'g	1–2 Fre. III
3–4 Philos.	A Ger. I	21–22 Eng.	55–56 Eng.	3–4 Fre.
13–14 Philos.	1–2 Ger. II	71–72 Eng.	21–22 Geol.	7–8 Geol.
11–12 Phys.	31–32 Greek	A Fre. II	1–2 Greek	25–26 Ger.
	1–2 Latin II	1–2 Fre. I	1–2 Hist. II	A Greek
	1–2 Math.I,III, V	51–52 Geol.	11–12 Hist.	21–22 Greek
	13–14 Math.	A Ger. IV	17–18 Hist.	15–16 Hist.
	5–6 Phys.	3–4 Greek	1–2 Latin I, IV	1–2 Latin III
		1–2 Hist. I	1–2 Phys. I	3–4 Latin II
		23, 22 Hist.	1–2 Rur. Econ.	35–36 Latin
		3–4 Latin IV, V	1–2 Zool.	1–2 Math. VII, IX
		1–2 Math.VIII, X		11–12 Math.
		5–6 Math.		
		15–16 Philos.		

Sixth Day E	Seventh Day F	Eighth Day G	Ninth Day H	Tenth Day I
1–2 Educ.	3–4 Botany	61–62 Chem.	1–2 Botany	1–2 Civ. Eng'g
59–60 Educ.	81–82 Chem.	15–16 Civ. Eng'g	18 Chem.	1–2 Econ.
5–6 Eng.	11–12 Civ. Eng'g	13–14 Econ.	25–26 Civ. Eng'g	27–28 Educ.
73–74 Eng.	1–2 Draw'g II	57–58 Educ.	1–2 Draw'g I	61–62 Educ.
A Fre. IV	31–32 El. Eng'g	13 El. Eng'g	25–26 Educ.	9–10 El. Eng'g
A Ger. II	1–2 Eng. (All Sections)	18– El. Eng'g	5 El. Eng'g	59–60 Eng.
23–24 Ger.	15–16 Eng.	7–4 Eng.	33, 34 El. Eng'g	A Fre. I, V
1–2 Hist. IV	23–24 Geol.	37–38 Eng.	15–16 Eng.	1–2 Ger. I
7–8 Hist.	1–2 Ger. IV	1–2 Fre. II, IV	23–24 Eng.	61–62 Greek
1–2 Latin V, VI	41–42 Ger.	15–16 Fre.	41–42 Eng.	1–2 Hist. III
1–2 Math. II, IV, VI	5–6 Greek	11–12 Geol.	A Fre. III	3–4 Hist.
3–4 Math. II	3–4 Phys.	A Ger. III	5–6 Fre.	5–6 Latin
11–12 Philos.		1–2 Ger. III	A Ger. V	11–12 Latin
7–8 Phys.		43–44 Greek	11–12 Greek	3–4 Math. I
5–6 Rur. Econ.		1–2 Hist. V	1–2 Italian	3–4 Spanish
		21–22 Latin	3–4 Latin I, III	
		31–32 Latin	1–2 Libr. Adm.	
		53–54 Latin	19–20 Philos.	
		1–2 Philos.	1–2 Phys. II	
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